United State Environmental Protection Agency
Region 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Confidential/FOIA Exempt/Not to be Released

Inspection Fields Notes/ Inspection Report

Date: September 13, 2012

Subject: City of Bangor MS4 Inspection

Engineering Department
73 Harlow Street
Bangor, ME 04401

From: Alex Rosenberg, CWA Compliance Officer
Office of Environmental Stewardship

To: FILE

General Information:

All pictures taken on the inspection can be seen in the K Share @ Inspection Documents/Inspection Reports/Maine/City of Bangor/2012-9-13 City of Bangor MS4.

In-Briefing:

On September 19, 2012 the Region[1] was invited by Wynne Guglielmo (Environmental Manager for the City of Bangor) to attend the Bangor Area Stormwater Group's monthly meeting and then to tour stormwater BMP projects in the City of Bangor. David Ladd, Maine's MS4 coordinator attended both the meeting and tour.

BASWG Meeting:

The group discussed the role and make-up of the public outreach committee and what type of clothing design would be most worn for a general stream clean-up effort. I was introduced to the group. David Ladd was asked when the MS4 stakeholders would be given a chance to review proposed permit language for the 2013 MS4 permit reissuance. No answer was given by Mr. Ladd.

After the meeting, Wynne, Ladd and I sat and looked at some maps that Wynne had printed by the City of Bangor's GIS department. They depicted a large number of

[1] *Alex Rosenberg*

(approximately 3000) catchbasins and other stormwater infrastructure such as outfalls, and pipes. One map specifically displayed the stormwater BMPs that had been constructed by the City.

It appeared that a large portion of the stormwater infrastructure has been mapped, contrary to the City's insistence at meeting after meeting that they have not inventoried or mapped their complete stormwater infrastructure as of yet, and that this process will be done in 2014.

Alex Rosenberg presented his credentials to Wynne at this sit down opening interview.

Site Visit:

Sylvan Road – A perched culvert has been removed and a new culvert is being installed. Bank stabilization is planned as well as rip-rap of the flood plain surrounding the culverted area. In the same area the city has removed a water main and have installed a natural bottom arch on a road bypass downstream.

Art Morgan, who joined the site walk noted that Penjajawok stream restoration had finished 1,400 linear feet out of 98,000 total.

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K-mart parking lot – According to Mr. Morgan, K-mart paid for porous pavement with the non-porous pavement section (1/3 of total area) draining to a detention pond which is now ill-maintained because the company isn't doing proper maintenance. Inspector observed the detention pond, and attests to the fact that it is not being maintained.

When the city redevelops Main Square Mall and McDonalds, Mr. Morgan hopes to implement similar sw BMP for the pervious areas.

Marsh – According to the city, there have been emplaced city ordinances to preserve and protect the marsh environment next to the Home Depot parking lot. A 200' buffer was established besides the box store and a 600' buffer from any residential neighbors. According to Mr. Morgan there have been a history of beavers in the Marsh below Stillwater Ave. which have disrupted the ecosystem and residents. By preserving the Marsh above Stillwater Ave. the city hopes to leave the beavers a large enough habitat where they can live and work.

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He also mentioned that the city has just awarded the contract to have bio-retention cells also be installed between the downtown parking lot and the river.

Alex Rosenberg noted a flowing 6' diameter concrete outfall across the river in the city of Brewer, ME.

DPW Maintenance Headquarters – According to Mr. Morgan the DPW conducts pre-wetting when the temperature is below 20 degrees Farenheit during pre-storm conditions. He continued to explain that residential streets have anti-icing applied and that all of the sanding and de-icing activities are dispensed by computerized trucks. Residential and Country roads get sand applications.

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Airport Stream – According to all present on the inspection, stormwater runoff from the DPW parking lot is discharged to this stream that creates a perimeter for the airport and is located approximately 200 meters from the DPW parking lot. According to Mr. Ladd, Gregg Bean of the MEDEP has been sampling this stream and coordinating the stream restoration projects. The stream runs along Union Avenue and under the airport before daylighting at this point next to the DPW. The stream then enters a spillway and weir before it discharges and becomes the headwaters of Birch Stream.

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Bangor International Airport (BIA) tank farm – Facility representative Ricky Howard met us as we entered the site. The contact phone number for the site is 207-992-4643. According to Wynne, who stated that she has ultimate oversight authority for this facility in her position as environmental manager of the city, Robert Beaton manages this site which has a 2 Million gallon capacity to hold both Jet fuel and regular fuel. The compliance officer for the airport is Rodney Madden, who Wynne oversees.

I quickly looked at the plan and noted that it was dated 2/29/12 and was signed by Robert Beaton. The substantial harm criteria checklist 40 CFR 112.20(e) was not signed. According to Wynne, Rodney believes that the airport only needs the signed plan within a half mile of the facility. Wynne disagrees with him and believes that one should be kept on site.

A site walk was conducted to inspect all of the ASTs on site. The large capacity oil tanks were well maintained and were clearly marked as to when the last inspections were and when the next inspections need to be scheduled. Containment areas were impeccably kept.

The vehicle fueling area had a stormwater catchbasin between the berms used as general secondary containment. No spill kits were identifiable when standing at the fueling station. The Jet A fuel sump tank container was uncontained, and was located approximately 10 feet from the catchbasin inside the fueling area. The re-fueling hoses were on the ground within the potentially trafficked area of the entrance driveway (also the fueling area). No locks were on the fuel hoses and therefore there existed a threat to vandalism and release of oil. The facility does have security lights, cameras and a locked gate.

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Region 1
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Confidential/FOIA Exempt/Not to be Released

Inspection Fields Notes/ Inspection Report

Date: February 21, 2012

Subject: City of Bangor Sewer Collection System (SSO/CSO/WWTF) Inspection

Engineering Department
73 Harlow Street
Bangor, ME 04401

WWTF
760 Main Street
Bangor, ME 04401

From: Alex Rosenberg, CWA Compliance Officer
Office of Environmental Stewardship

To: FILE

General Information:

All pictures taken on the inspection can be seen in the K Share @ Inspection Documents/Inspection Reports/Maine/Bangor. Selected photos with annotation are at the same link in PDF format, called Photo Album.

In-Briefing:

On February 14th, 2012 the Region[1] was invited by the City of Bangor to tour/inspect the WWTF, the Engineering Department, the stormwater collection system and the sanitary sewers/CSOs. Meetings commenced at 1000 hours and lasted until 1600 hours. The inspection was conducted in multiple parts: a entrance meeting, a WWTF plant walk-through, Sewer/Stormwater collection system and CSO location field visits, Engineering Department visit and an exit interview.

Entrance Meeting: 1000am – 1030am

Attendees –

[1] *Alex Rosenberg*

Bradley Moore, Superintendant WWTF brad.moore@bangormaine.gov 992-4471
Sean Currier, Supervisor Sewer Maintenance, sean.currier@bangormaine.gov 992-4513
Tim Ford, Lead technician Sewers, (b) (6)
Paul Nicklas, Assistant City Solicitor, paul.nicklas@bangormaine.gov 992-4275
Alex Rosenberg, EPA
Art Morgan, Director of Public Services art.morgan@bangormaine.gov
Jeff Allen, Engineering Dept, jeff.allen@bangormaine.gov 992-4183
John Murphy Asst.City Engineer, john.murhpy@bangormaine.gov 992-4247
Wndy Warren Bangor's Environmental Coordinator, wendy.warren@...same... 992-4255

WWTF

In May of 1968 a 43 MGD primary waste treat facility was built at the same location as the current WWTF. In December of 1992 secondary treatment was added for the same (and current) capacity of 43 MGD. The on-site laboratory conducts all metal and semi-volatile parameters and sends samples to off-site contracted facility for Mercury. In the summer they test for Phosphorous between June 1st and Sept.

The city accepts sewage from some portions of the Towns of Hampden and Herman. Inter-municipal agreements state that if 80% of the allotted capacity for either respective town is reached during three consecutive months, a study must be conducted. The city also manages a pre-treatment program for all three municipalities.

According to Brad Moore (BM), the facility produces approximately 6800 tons of biosolids per year with an average saturation of 26%. These solids are trucked to new England organics at Hawke Ridge. NE Organics makes between 0 and 3 trips to the facility daily for pick-up. The city has just renewed their expired 15 contract for 5 years with the right to renew for two more five year contracts. Between 1974 and 1994 they deposited solids at the airport.

There are 3 primary tanks, the third of which is only used for wet weather (when flow exceeds 30MGD). Chlorine is added at the beginning of these baffled tanks and bisulphate is added at the end. Influent can be modulated.

There are four pumps, one of which is constant speed and is used as the first lag pump. Pumps are usually rotated weekly. In 1997 the WWTF was upgraded to fiber-optics. Operators can control flow in operational electrical room or in control room in main office building. The WWTF has two separate electrical feeds to ensure greater redundancy. All switches have tie breakers.

The WWTF is staffed 10 hrs/day. During off hours the SCADA system calls in an operator at high levels with different alarms for different scenarios. If the alarm does not reach the first individual on the call chain, it tries the next, until it calls Brad Moore. A list of system alarms is kept electronically for 30 days. The department (according to

Brad Moore and other operators) relies more on institutional knowledge, than analysis of alarm records, to prioritize work.

Employees rotate on a 4 week schedule for the following tasks: dewatering (2 staff), Pump stations (2 staff), daily monitoring (1 staff), rover (1 staff). These 6 operators are able to do all the jobs. When a position requires 2 staff, their respective shifts are offset by 2 weeks to ensure consistency in understanding temporary problems/trouble-shooting.

The influent butterfly valve used to be hydraulically controlled. Now it is electric and is backed up with a back-up generator. The automatic PLC is on a battery back-up in order to command the start of the generator in case of a power outage. The generator is supposedly checked weekly by allowing it to run for 45 minutes. A daily visual checklist is also conducted. The generator-PLC automated connection is not tested in any formal manner.

The primary sludge is pumped on timers. It is co-thickened with hypochlorite and as waste activated sludge in two gravity thickeners. Sludge lines are cleaned by a series of in-line pigs that can be shot both ways. Two, 2 meter presses, dewater the sludge, and produce approximately 25 cubic yards/day.

Samples of final effluent are taken from two locations. The primary sampler is where a continuous discharge is sent to the Penobscot. The second sampler is used only during wet weather, and it reads the primary treated effluent only. The two samplers are then mass balanced as a means to back calculate final effluent concentrations.

A pump station pumps primary treated wastewater to a 110’ trickling filter. Filter media is 16’ thick and is currently 10 years old. The media has a life expectancy of 5-12 years and a surface area of 106 acres.

Two aeration tanks are outfitted with new LDO oxygen probes (light source). They are also equipped with micro bubblers at their base and are needed during the summer only. During the winter the WWTF accepts a limited 2,500 pounds of BOD from airport deicing fluid (or 25,000 gallons per day).

According to Brad Moore, approximately 2 tons/day of bugs are ‘wasted’ from clarifiers.

SPCC

The facility does have a SPCC plan. The plan was not reviewed as part of this visit. A 1000 gallon furnace tank and two 275 gallon diesel tanks were observed in the WWTF electrical building. The garage contained approximately fifteen 55-gallon drums, all but one were properly contained. There was also two 275 gallon heating oil tanks in the garage.

Four empty drums were observed behind the parshall flume, and it was recommended that they be properly ‘closed’ or removed.

Pump Stations and Collection System

All Pump stations have back-up power (generators) except Odlin.

Two in-line storage systems have been installed in the sewer collection system. These storage units are both in-line.

When wet-well maintenance is required at the WWTF, the in-line storage devices can allow for approximately 4.5 hrs of flow stoppage to conduct the work without a bypass.

As described in the 2011 CMOM annual report and was discussed on this site visit, access to the collection system is a continuing issue for proper maintenance and emergency response. Easements are sometime contested and property owners dislike cutting for access. The department has purchased a new 4x4 and will begin to use it for access to long back-country interceptor run checks. One particularly difficult access problem is the Penobscot East Interceptor that runs on a thin strip of land between the Penobscot river and the railway. The railway company demands that notice is given before accessing the area, and highly restricts the times and duration that access is allowed due to train crossing.

IDDE: according to City staff visual inspections at all CSO outfalls are conducted annually during dry weather.

On the tour EPA inspector was able to observe sewer maintenance crew using VAC truck on a section of pipe in Davis Brook. The inspection field sheet (see Photo Album PDF file) included fields for time, footage and TV log. According to the maintenance workers the protocol is to check surrounding stormwater drains near a sewer project. No other protocol for stormwater preventative maintenance could be determined through questioning of city personnel.

CSO/CSO Structures

The waterfront storage or Davis Brook CSO Storage Facility was constructed in 1998. It has required no maintenance since opening and provides 1.2 MG of storage . The original 42 inch interceptor was retained in parallel to the in-line storage unit to provide overflow capacity and the ability to re-route flows for maintenance and cleaning. Approximately 80% of Bangor's sewage flows through this storage unit daily. An additional benefit to the project was the remediation work that was completed in conjunction with the construction of historic coal tar pollution at the water front.

The Barkersville CSO outfall, located below the second in-line storage structure, Kenduskeag East. Kenduskeag East has a capacity of 1.4 Million Gallon (MG) and has box like dimensions of 10' by 12' by 1640'. It helps to prevent over capacity issues in the Penobscot interceptor. The structure has a modulator and a V-bottom. Since its

fabrication and installation in 2003 no maintenance. Staff occasionally walk the structure to spot check the integrity.

One issue of concern according to Brad Moore is the runoff from the route 395 – 95 junctions that enters the sewer system downstream of this CSO control storage structure. Again according to City staff, the federal highway dept is not interested in allocating funds to stormwater pollution prevention and management.

The Cemetery CSO reached a zero flow rate a few years ago and was planned to be permanently stricken from the list of permitted discharge points. Before permit reissuance or modification the city bricked the CSO outfall. In 2011 however, an SSO event upstream of this point in the system caused the city to decide, as a preventative measure, to keep the CSO permitted and to open it back up (See CMOM 2011 annual report).

Carr brook CSO has been re-licensed as a CSO because of the determination that stormwater discharges in the area had significant contributions by sewer cross-connections.

The Hammond St. CSO overflow is downtown. It is a stone culvert below a bridge and is so old that for a portion of its structure there is only a gravel bottom. ADS helped to install flow monitoring device at this and other CSO locations. The signage for this CSO outfall is under the bridge at the end-of-pipe.

SW

The stormwater outfall from the WWTF is submerged at high tide. It was not clearly noted how samples are taken for quarterly inspections during these periods.

Two Stormtech stormwater BMPs were installed in the Pejajawok impaired stream watershed, one at Hogan Ave and the other in the parking lot of the four car dealers across the street from the Eastern Bangor College. The car dealership project cost $200K, $90K from the DEP and $110K from the car dealerships. The DEP secured $3M in ERA grant money for BMPs.

In the Pejajawok watershed a box culvert was placed under the interstate highway. 2 detention ponds were also installed to collect 1/3 of the runoff from the Bangor Mall parking lot. The stream that runs 1400’ from Pender Mall blvd to the interstate, past the K-mart pump station and the stormwater detention ponds, had it’s channel re-engineered to adequately contain flood waters.

A 319 grant was also secured by the City to complete 3 BMPs around the Citgo station at the intersection of Hogan Ave and interstate 95.

GIS Mapping

Prior to digital mapping, the City's CAD maps had been used since the turn of the last millennia (1900). In 1998 a new set of maps with topography was generated. For the past three years the Eng. Dept has employeed a GIS specialist who has been working to input the cities assets into digital format. When CH2MHill was acquired to create the first generation of the City's sewer/CSO/SW models using SWMMM, the consultants provided the city with GIS attributes as an aide to asset management. The City is still currently culling the wide range of attributes in order to better fit their needs.

In terms of stormwater mapping, the City is still using the old numbering system. Assets and their identification have not yet been merged into electronic format. For example, field sheets are being filled out by maintenance staff that reference catch basin ID's that do not correlate with any digital information. The process of bringing this type of information into GIS from CAD is underway and is expected to take at a minimum another year.

The GIS effort is currently focusing on two other areas, sanitary sewers and land parcel's. In terms of sanitary sewers, the hope is that the entire system will be mapped in GIS by the end of summer 2012 (August). This date does not include service connection, only the in street pipes and outfalls. The proposal has been raised to buy a GPS unit for the maintenance truck in order for the crews to eventually populate the database in one step.

The term 'scope creep' was used when City staff explained how the GIS FTE is spending half-time digitizing municipal property boundaries which is not only helpful for stormwater utility analysis but also for many other City departments. There are weekly meetings for the stormwater utility.

Engineering Dept.

Until last year (2011), utility companies paid an annual dig safe fee of $500 to the City's Engineering Dept. The fee included all of the City staff visits – painting, checking, re-checking if project stalled. Now utilities, as well as private citizens and companies, must pay a $50 permit fee for each request and trip of City staff to a site. To give an example of how much time is spent by City staff doing this type of work, Bangor Gas alone does approximately 700 dig safe requests per year.

CH2MHill was hired by the City for a 3-yr, $500,000 per year, contract to assist with all aspects of CWA compliance – CMOM assessment, SWMM modeling, asset management, CSO LTCP, stormwater management and integrated management. A majority of their time and resources are being spent on hydraulic modeling, asset management and integrated management.

Exit Interview

CH2MHill has been updating the City on EPA comments given at the multiple regional public meetings held concerning the Integrated Approach strategy for municipal CWA compliance. The City would like EPA to grant them an extension on their CSO LTCP

report preparation (currently due Sept 31, 2012) in order for them to prepare an integrated management approach plan.

According to the City, who heard this from CH2MHill, the EPA representative who was presenting in Atlanta and New York was not ‘bit into Green Infrastructure problems’. Bangor wishes to be an example of small city approach to integrated management.

EPA exited the site at 4:00 pm.

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From: Alex Rosenberg, CWA Compliance Officer
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EPA Region 1
Clean Water Act
Inspection Data Entry Form: 3560EZ

Inspector:	Erin Trainor	Date form completed:	7/11/2013

Section A: Facility Information						
Inspection start date:	7/8/2013	Inspection end date (if more than one day):	7/9/2013			
NPDES ID:	ME0100781	Federal facility?	No			
Name and Location of Facility Inspected:						
Name:	City of Bangor, ME MS4/CSO					
Address:	Various tributaries and one CSO outfall					
City:	Bangor	State:	ME	ZIP:	04401	
Facility On-Site Representative #1:						
Name:	Sean Currier (on-site 7/9/2013 only)					
Title:	Sewer Collection System Manager, City of Bangor					
Phone #:	207-992-4470	Fax # / email:	207-947-3537			
Facility On-Site Representative #2 (if necessary):						
Name:	James (Jim) Grant (7/9/2013 only)					
Title:	Sewer Maintenance					
Phone #:	207-992-4470	Fax # / email:	207-947-3537			

Section B: Compliance Monitoring Information	
Compliance Monitoring Activity Name:	CSI
Clean Water Act Section (choose from only one of the following):	
CWA §308[A][B]: NPDES	Stormwater - MS4
CWA §311: Oil and Hazardous Substances	Choose an item
CWA §404: Permits for Dredge and Fill Material	Choose an item
Compliance Monitoring Type:	Inspection w/ Sampling
Compliance Monitoring Reason:	Agency Priority

If Agency Priority, then specify priority(s):

OECA - CAFO	☐
OECA - CAFO Region Initiative Areas	☐
OECA - CSOs w/ < 50,000 service population	☒
OECA - CSOs w/ >= 50,000 service population	☐
OECA - MS4s Phase I	☐
OECA - MS4s Phase II	☐
Region 1 - Environmental Justice	☐
Region 1 - Green Economy / Green Infrastructure	☐
Region 1 - Industrial Laundries	☐
Region 1 - Lead Poisoning	☐
Region 1 - Municipal Infrastructure	☐

Region 1 - Pollution Prevention & Resource Conservation	☐
Region 1 - Ship / Boat Yards	☐
Region 1 - Wet Weather	☐

Compliance Monitoring Agency Type:	EPA
Was this a Joint Compliance Monitoring Activity?	No
Which party had the lead?	Choose an item or leave blank if N/A
If State lead, what was the purpose of EPA participation?	Choose an item or leave blank if N/A

Section C: ICDS Information	
Did you observe deficiencies (potential violations) during the inspection?	Yes
Potential excess emission in violation of regulations:	☐
Potential failure to… … complete or submit a notification, report, certification, or manifest:	☐
… follow a permit condition(s):	☒
… follow a required sample monitoring procedure or laboratory procedure:	☐
… follow or develop a required management practice or procedure:	☐
… identify and manage a regulated waste or pollutant in any media:	☒
… maintain a record or failure to disclose a document:	☐
… maintain/inspect/repair meters, sensors, and recording equipment:	☐
… obtain a permit, product approval, or certification:	☐
… report regulated events such as spills, accidents, etc.:	☐
Potential incorrect use of a material (pesticide, waste, product) or use of an unapproved material:	☐
Potential violation of a compliance schedule in an enforceable order:	☐
If you observed deficiencies, did you communicate the deficiencies to the Facility during the inspection?	No
If yes, did you observe the Facility take any actions during the inspection to address the deficiencies noted?	Choose an item
If yes, what actions were taken?	Choose an item
If the Facility reduced pollution, what pollutant was reduced?	Enter text
Did you provide general compliance assistance in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No
Did you provide site-specific compliance assistance in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No

Comments:

United State Environmental Protection Agency
Region 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Field Code Changed

Confidential/FOIA Exempt/Not to be Released

Inspection Fields Notes/ Inspection Report

DATE: June 19 2013

SUBJECT: Inspection Report

MS4 and CSO Compliance Sampling Inspection Reconnaissance
City of Bangor

FROM: Inspector - Alex Rosenberg

TO: FILE

Drafted Date: 6 28 13
Finalized Date: 7/2/13
Reviewed By: Erin Trainor
Reviewed Date7/1/2013

Purpose:

To identify sample locations in order to plan the logistics of a future Compliance Sampling Inspection for both the MS4 and CSO outfalls within the City of Bangor.

General:

Other than a brief conversation with a sewer department field worker at one of the CSO outfalls the City was not communicated with prior to or during this reconnaissance.

A GPS camera was used in order to facilitate finding the sites again.

Prior to entering the field, stormwater infrastructure and sewer infrastructure maps were reviewed by the inspector.

Field Notes:

A photo log has been drafted and is saved in the file along with original photos.

After touring the Penjajawoc, Capehart and Birch stream watersheds I then tried to locate CSO outfall #016 which is located on the banks of Kenduskeag Stream. I asked some cemetery workers if they knew of any access location to reach the outfall. They explained how to get there by way of a dirt access road near the intersection of 14th Street and Valley Rd. 14th Street runs parallel and just south of Interstate 95 off of Ohio St.

When traveling down the dirt access road to the CSO location I encountered a city contracted sewer cleaning operation. The staff explained that they were cleaning a double barrel sewer line that runs beneath the Kenduskeag River. They explained that this is routine maintenance and that no out of the ordinary issues have been encountered.

The staff warned me of a high number of suspicious characters wandering the woods, and to be safe walking the extra distance along the access road to reach CSO outfall 016. All that was observable at outfall 016 was a manhole cover located directly adjacent to the south side of the access 'road', that at this point was reduced to a two foot wide foot-path. The Kenduskeag River flows approximately 15 feet to the north of the foot-path. Between the path and the river a highly vegetated area, dense with poison ivy, shielded the view of what looked like an outfall structure.

Upon exiting the access road in my car, I ran into a sewer maintenance truck of the City of Bangor. The worker, Tim Ford, told me that I was not permitted to be on the access road. I identified myself as an EPA inspector and showed him my credentials. He said that it didn't matter. I told him, okay, and was already leaving the premises. At the gate, I stopped him to ask if he could tell me which, if any, of the City's CSO outfalls could be observed from land and were accessible. He ran down the list of all the CSO's using a map that I had. He stated that most of the outfalls are accessed via manholes.

Central and Hammond St CSO's he said were located under bridges.

Meadowbrook CSO he said is located behind the federal building, just beyond the guard shack and could be accessed.

Barkersville he said he monitors through a manhole.

Kenduskeag East is not accessible except through a manhole and Kenduskeag West is located on Washington St. and could possibly be observable at extremely low tide.

Tim also mentioned that he thought Kenduskeag East and West were closed because he doesn't check them anymore, but he said this could be because they now have electronic monitoring or something.

Conclusions:

Suggested stormwater sample locations:

See photo log and sample plan tables.

EPA Region 1
Clean Water Act
Inspection Data Entry Form: 3560EZ

Inspector:	Alex Rosenberg	Date form completed:	6/19/2015

Section A: Facility Information						
Inspection start date:	6/19/2013	Inspection end date (if more than one day):	6/19/2013			
NPDES ID:	ME0100781	Federal facility?	No			
Name and Location of Facility Inspected:						
Name:	City of Bangor					
Address:	760 Main St					
City:	Bangor	State:	ME	ZIP:	04401	
Facility On-Site Representative #1:						
Name:	Bradley Moore					
Title:	WWTP Superintendant					
Phone #:	207 992 4471	Fax # / email:	Brad moore@bangormaine.gov			
Facility On-Site Representative #2 (if necessary):						
Name:	Enter text					
Title:	Enter text					
Phone #:	Enter text	Fax # / email:	Enter text			

Section B: Compliance Monitoring Information	
Clean Water Act Section (choose from only one of the following):	
CWA §308[A][B]: NPDES	Combined Sewer Overflows
CWA §311: Oil and Hazardous Substances	Choose an item
CWA §404: Permits for Dredge and Fill Material	Choose an item
Compliance Monitoring Type:	Inspection
Compliance Monitoring Reason:	Core Program

If Agency Priority, then specify priority(s):

OECA - CAFO	☐
OECA - CAFO Region Initiative Areas	☐
OECA - CSOs w/ < 50,000 service population	☐
OECA - CSOs w/ >= 50,000 service population	☐
OECA - MS4s Phase I	☐
OECA - MS4s Phase II	☐
Region 1 - Environmental Justice	☐
Region 1 - Green Economy / Green Infrastructure	☐
Region 1 - Industrial Laundries	☐
Region 1 - Lead Poisoning	☐
Region 1 - Municipal Infrastructure	☐
Region 1 - Pollution Prevention & Resource Conservation	☐

Region 1 - Ship / Boat Yards	☐
Region 1 - Wet Weather	☐

Compliance Monitoring Agency Type:	EPA
Was this a Joint Compliance Monitoring Activity?	No
Which party had the lead?	Choose an item or leave blank if N/A
If State lead, what was the purpose of EPA participation?	Choose an item or leave blank if N/A

Section C: ICDS Information	
Did you observe deficiencies (potential violations) during the inspection?	No
Potential excess emission in violation of regulations:	☐
Potential failure to… … complete or submit a notification, report, certification, or manifest:	☐
… follow a permit condition(s):	☐
… follow a required sample monitoring procedure or laboratory procedure:	☐
… follow or develop a required management practice or procedure:	☒
… identify and manage a regulated waste or pollutant in any media:	☒
… maintain a record or failure to disclose a document:	☐
… maintain/inspect/repair meters, sensors, and recording equipment:	☐
… obtain a permit, product approval, or certification:	☐
… report regulated events such as spills, accidents, etc.:	☐
Potential incorrect use of a material (pesticide, waste, product) or use of an unapproved material:	☐
Potential violation of a compliance schedule in an enforceable order:	☐
If you observed deficiencies, did you communicate the deficiencies to the Facility during the inspection?	No
If yes, did you observe the Facility take any actions during the inspection to address the deficiencies noted?	No
If yes, what actions were taken?	Choose an item
If the Facility reduced pollution, what pollutant was reduced?	Enter text
Did you provide general compliance assistance in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No
Did you provide site-specific compliance assistance in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No

Comments:

Was a RECON for sampling event later in the month. Did not contact city about recon. Plan is now to sample in two weeks after coordinating with the lab.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: August 7, 2013

SUBJ: MS4 Compliance Sampling Inspection
City of Bangor, Maine

FROM: Erin Trainor, Inspector 8/7/2013

TO: File

REVIEWED BY: Alex Rosenberg 8/7/13

REQUESTED BY: Alex Rosenberg, OES

I. Background Information

A. Date, Time of inspection: Monday, July 8, 2013, 12:30PM to 15:30PM
Tuesday, July 9, 2013, 8:00 AM to 15:15PM

B. Weather Conditions: Sunny, approximately 70 degrees F

C. USEPA Representatives: Erin Trainor
Alex Rosenberg

D. Site Representative(s): Bradley Moore
WWTP Superintendant
City of Bangor
760 Main, Bangor, Maine 04401

E. Address: Various locations along Penjajawoc Stream, Birch Stream, Capehart Brook, Kenduskeag Stream, Birch Stream, and the Penobscot River.

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Bangor's municipal separate stormwater sewer system (MS4) and combined sewer system that may adversely impact the water quality. Samples were collected from eight (8) locations either in streams or at stormwater outfalls in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- In stream sample located in the Penjajawoc Stream to the west of Bangor Federal Credit Union, identified as PJ-2-3.
- In stream sample located in the Penjajawoc Stream to the south of Wendy's Restaurant, identified as PJ-04.
- In stream sample collected from Capehart Brook at the northeast end of Pushaw Road, identified as CB-01.
- In stream sample located along Birch Stream to the west of Godfrey Boulevard, downstream of the City of Bangor's Department of Public Works' (DPW) yard, identified as BR-04.
- In stream sample located along Birch Stream to the east of Bangor International Airport (BIA) Commercial Industrial Park, prior to the confluence with BR-04, identified as BRBBHYD.
- In stream sample located along Birch Stream to the north of Ohio Street, prior to entering the Kenduskeag Stream, identified as BR-01.
- Combined sewer overflow located along Kenduskeag Stream, identified as CSO11.
- In stream sample collected north of Mount Pleasant Cemetery, identified as K-trib.

A map of the sample locations in attached along with photographs.

IV. Inspection Observations and Findings

On Monday and Tuesday July 8 and 9, 2013, EPA inspectors Alex Rosenberg and Erin Trainor conducted an Compliance Sampling Inspection (CSI) within the City of Bangor, Maine at eight (8) locations along Penjajawoc Stream, Birch Stream, Capehart Brook, Kenduskeag Stream, Birch Stream, and the Penobscot River.

The inspection started in Bangor at approximately 12:30 PM on Monday, July 8, 2013 and continued into July 9, 2013. At the time of the inspection, the weather was sunny and approximately 70 degrees Fahrenheit. According to weather underground, 0.3 inches of rain was reported on July 8, 2013.

EPA inspectors announced the inspection at approximately 2:00PM on July 8, 2013, and requested the City have staff available on July 9, 2013 to open manholes for inspection.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants and analyzed for E.Coli and Enterococcus at Maine Center for Disease Control and Prevention located in Augusta, Maine and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol at the EPA New England Regional Laboratory (NERL) located in North Chelmsford, Massachusetts. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following table summarizes the findings.

End of Report

Attachments: Table 1: Summary of Bangor, ME MS4 Inspection – July 8, 2013
Table 2: Summary of Bangor, ME MS4 Inspection – July 9, 2013
Photographs and Sample location map

Table 1: Summary of Bangor, ME MS4 Inspection – July 8, 2013

Sample ID	PJ-2-3	PJ-04	CB-01	BR-04	BRBBHYD	BR-01
Time	12:50	13:10	14:00	14:55	15:00	15:40
Latitude/Longitude	44.82638581 N / 68.73963875 W	44.83425329 N / 68.74572209 W	44.848403 N / 68.811331 W*	44.8170711 N / 68.8115315 W	44.81711897 N / 68.81171983 W	44.82391593 N / 68.80777314 W
Description of Location	In stream sample located from the Penjajawoc Stream to the west of Bangor Federal Credit Union.	In stream sample located from the Penjajawoc Stream to the south of Wendy's Restaurant.	In stream sample collected from Capehart Brook at the northeast end of Pushaw Road.	In stream sample located along Birch Stream to the west of Godfrey Boulevard, downstream of DPW yard.	In stream sample located along Birch Stream to the east of Bia Commercial Industrial Park, prior to the confluence with BR-04.	In stream sample located along Birch Stream to the north of Ohio Street, prior to entering the Kenduskeag Stream.
Physical Observations	Stream approx. 7' width and 6" depth. Moderate flow.	Stream approx. 4' width and 6" depth. Moderate flow. Suds observed.	Outfall approx. 10' in diameter. Flow > 100 gallons per minute.	Low to moderate flow. Turbid.	Tributary to BR04. Some suds present.	Cloudy.
Temperature, °C	22.3	23.2	18.4	20.0	20.3	21.0
Specific Conductivity, µS	473	388	382	315.3	468.4	376
Salinity, ppt	0.2	0.2	0.2	0.2	0.2	0.2
Ammonia, mg/L	NA	0	0	0.25	0	0
Chlorine, mg/L	NA	0.07	0.08	0.04	0.09	0.21
Surfactants, mg/L	NA	0.20	0.10	0.2	0.10	0.25
Atenolol, ng/l	ND	ND	ND	ND	ND	ND
Acetaminophen, ng/l	12	ND	ND	22	3.0	18
Cotinine, ng/l	15	5.7	6.7	7.8	2.5	9.2
1,7-Dimethylxanthine, ng/l	18	8.4	3.1	26	8.1	28
Caffeine, ng/l	210	66	35	330	26	290
Carbamazepine, ng/l	ND	ND	1.1	0.31[L]	ND	ND
Metoprolol, ng/l	ND	ND	ND	0.73[L]	0.73[L]	ND
E.Coli, MPN/100ml	1,300	488	2,620	1,300	687	1,553

NA: Not analyzed
ND: Not detected above reporting limit
*GPS coordinate collected from AcrGIS Explorer
L: Estimated value below the calibration range

Table 2: Summary of Bangor, ME MS4 Inspection – July 9, 2013

Sample ID	CSO11	K-trib
Time	12:00	13:05
Latitude/Longitude	44.803753 N / 68.774823 W*	44.815080 N / 68.790170 W*
Description of Location	Combined sewer overflow located along Kenduskeag Stream.	In stream sample collected north of Mount Pleasant Cemetery.
Physical Observations	Outfall partially submerged. Running water heard upstream in pipe. Suds present.	Flow approx. 30 gallons per minute. Tributary to Kenduskeag.
Temperature, °C	23.7	15.7
Specific Conductivity, µS	174.4	791
Salinity, ppt	0.1	0.4
Ammonia, mg/L	0	0.25
Chlorine, mg/L	0.06	0.03
Surfactants, mg/L	0.2	0.25
Atenolol, ng/l	ND	ND
Acetaminophen, ng/l	6.6	ND
Cotinine, ng/l	1.0	2.8
1,7-Dimethylxanthine, ng/l	6.5	3.6
Caffeine, ng/l	15	6.6[B]
Carbamazepine, ng/l	0.25[L]	0.31[L]
Metoprolol, ng/l	ND	ND
E.Coli, MPN/100ml	687	95

NA: Not analyzed
ND: Not detected above reporting limit
*GPS collected from AcrGIS Explorer
L: Estimated value below the calibration range
B: Analyte associated with the lab blank contamination. Value is qualified when the observed concentration of the contamination in the sample extract is less than 3 times the concentration in the blank.

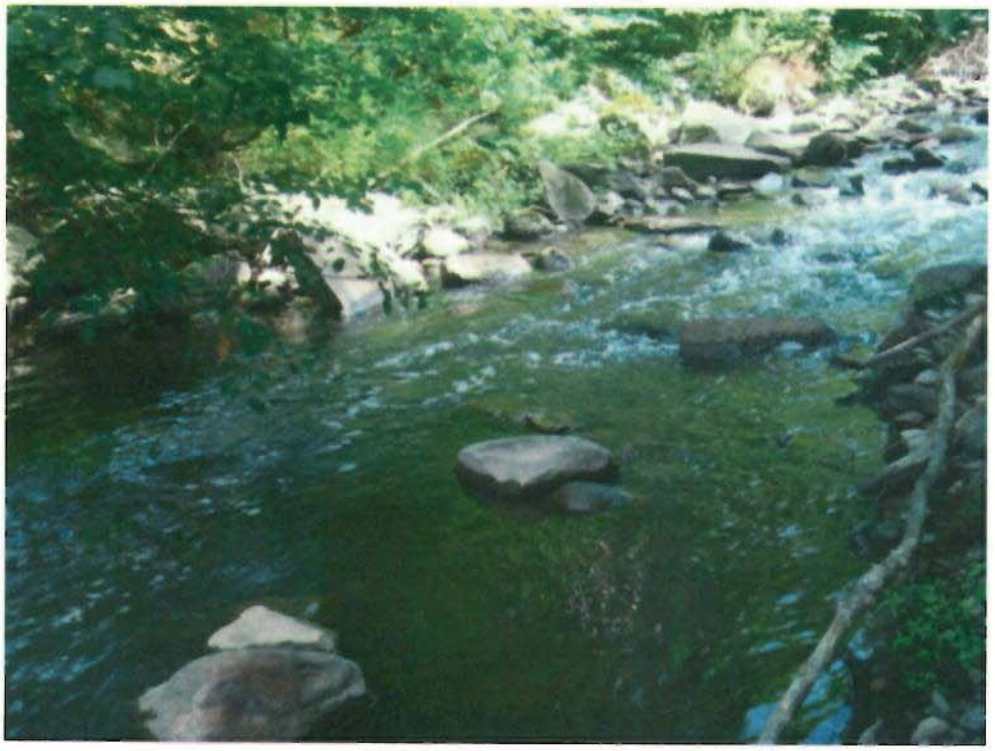
PJ-2-3: In stream sample located from the Penjajawoc Stream to the west of Bangor Federal Credit Union.

PJ-04: In stream sample located from the Penjajawoc Stream to the south of Wendy's Restaurant.

CB-01: In stream sample collected from Capehart Brook at the northeast end of Pushaw Road.

BR-04: In stream sample located along Birch Stream to the west of Godfrey Boulevard, downstream of DPW yard.

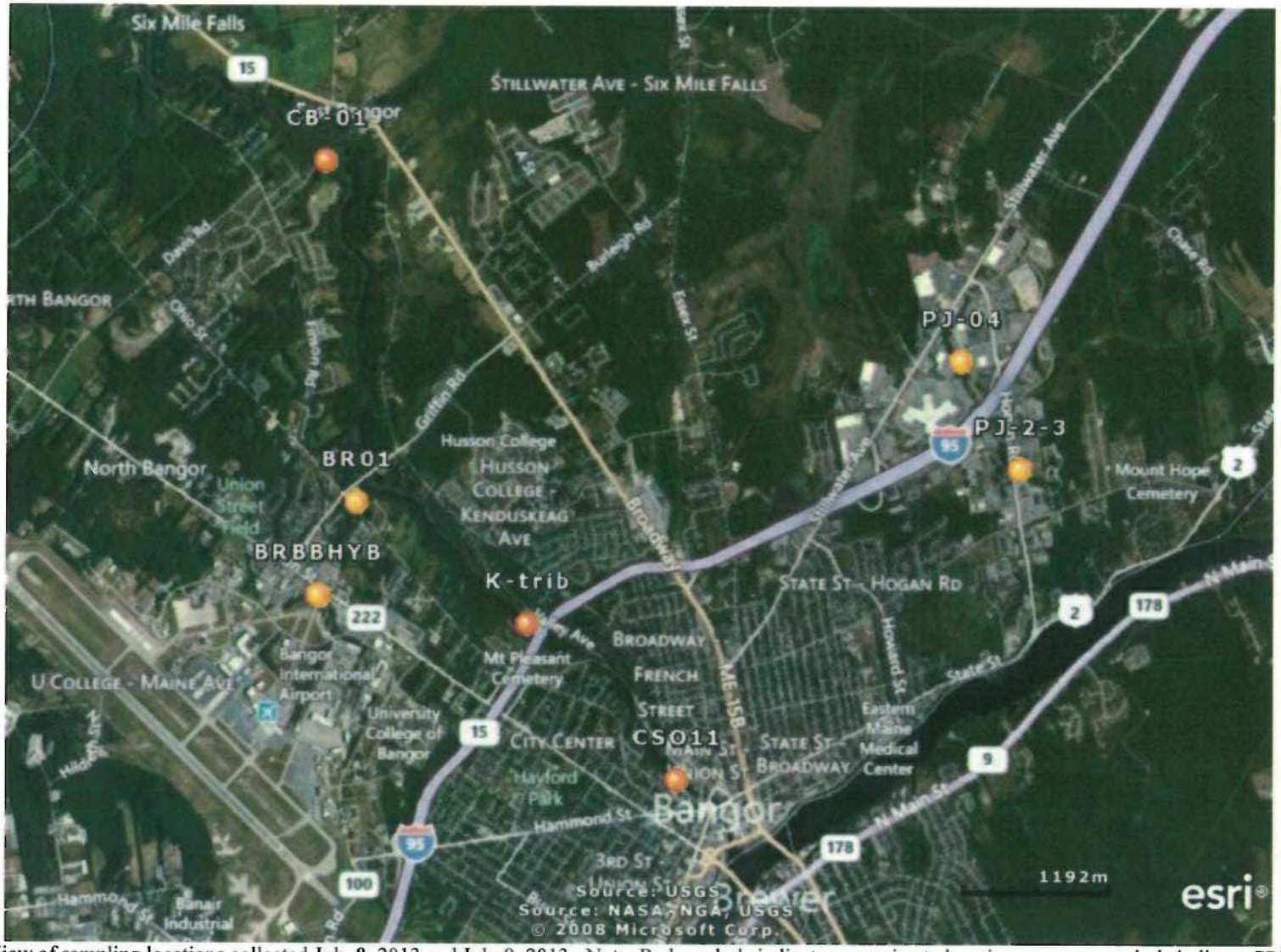
BRBBHYD: In stream sample located along Birch Stream to the east of Bia Commercial Industrial Park, prior to the confluence with BR-04.



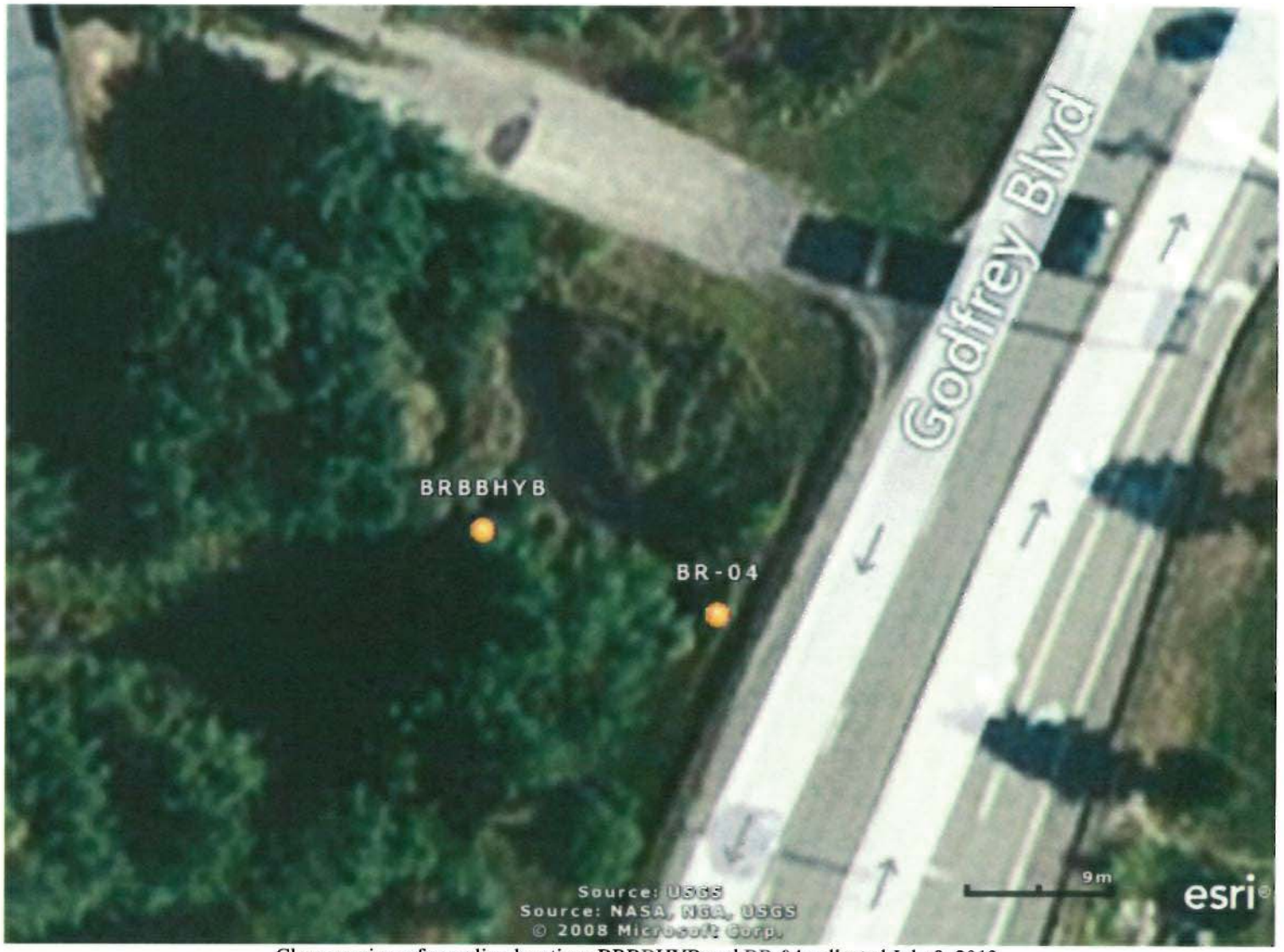
BR-01: In stream sample located along Birch Stream to the north of Ohio Street, prior to entering the Kenduskeag Stream.

CSO11: Combined sewer overflow located along Kenduskeag Stream.

K-trib: In stream sample collected north of Mount Pleasant Cemetery.



View of sampling locations collected July 8, 2013 and July 9, 2013. Note: Red symbols indicate approximate locations, orange symbols indicate GPS coordinates collected in field.



Close up view of sampling locations BRBBHYB and BR-04 collected July 8, 2013.

Bangor Review Comments

The following documents were reviewed:

- PY3 MS4 Annual Report – Nov 22, 2011
- CMOM 2011 Annual Report – Jan 31, 2012
- Asset Management Report – Appendix B of CMOM 2011 Report (Jan 2012)

Engineering, O^M & WWTF

⇒ No standard operating procedures for how to respond to a SCADA alarm exist. Also, the alarm history is kept for only 30 days in electronic format. Facility flow trends as opposed to alarm history is used to a greater extent for planning maintenance. While on the site visit Feb. 14, 2012 a SCADA system alarm – communication failure - was tripped for the K-mart pump station (PS) at 10:30.05AM. The controller at that time explained that because there has been frequent malfunctioning of the communication signal with the K-mart PS, staff usually will wait an hour before responding to see if it fixes itself. Approximately 55 minutes after the alarm sounded the communication came back online without adjustment.

This situation highlights two important points. First, the institutional knowledge at the city's WWTF and within it's Engineering Department is very good. Brad Moore, the wastewater superintendent does an excellent job at managing this knowledge. One example of this management is that during shift rotations one staff member remains dedicated to each respective task.

The second point is that written protocols seem to be lacking, one example being alarm response. The SCADA system includes redundancies to ensure that someone is contacted at anytime. However, without written protocols, there exists the possibility of confusion regarding how to react. Most importantly, protocols should be created for unmanned, off-hour response, when alarm response is completely reliant on the SCADA system.

⇒ The back-up generator that would run the WWTF influent butterfly valve in the case of loss of electricity is controlled by the automated 'PLC' system. The PLC has a battery back-up that theoretically enables the system to continue to function in the case of an electrical outage thereby signaling the back-up generator to begin. The back-up generator however is tested *manually* each week. The connection between the PLC system and the generator should be tested on some regular basis if possible.

⇒ Access to sewer assets is a continuing issue. The most contentious access point is the Penobscot interceptor that runs between the river and the railroad tracks. The railway company requires notification before access is granted and there are duration and frequency restrictions based on train schedules. What does the city propose to do to ensure safe and timely response for both maintenance and emergency relief at this location?

⇒ In 2011 permit fee structures for the Dig Safe program were changed from having utility companies pay a one-time annual fee of $500, to now requiring a permit fee of $50 each time that DEP staff go on-site (painting, checking, re-checking, etc.). According to City Staff, Bangor Gas alone completes approximately 700 dig safe projects per year. Not considering the question of whether the current fee structure is adequate to compensate for the City staff's time, a question that may want to be considered is whether the engineering department would be better suited to have a dedicated employee/vehicle for the program? It is certain that digitization of all assets in GIS will decrease the time spent on-site during dig safe work requests.

⇒ A top-down heavy approach seems to be the best solution for Bangor in terms of asset management; using existing institutional knowledge to manage from a high level and letting plans become more detailed as more exact, statistical, and geographically aligned information is gathered. EPA agrees with CH2MHill approach as such.

⇒ The asset management plan assumes 'a risk score of 10 was applied to all collection system assets that do not have a written operation and maintenance plan (but notes, the City's CMOM program document, which is in development, will address the need for written operation and maintenance plans for the collection system). This is an important reminder to continuously reassess and modify the risk scoring assumption as the City further develops their CMOM program. (see asset management report page 3-1)

⇒ CH2MHill states that 'the City of Bangor currently does use a CMMS; however, the tool is not fully utilized by the collection system maintenance staff.' They go on to state that 'full implementation of a CMMS tool for the entire sewerage system is recommended to assist with maintenance and planning activities, including generating work orders, creating equipment history reports, and tracking "top ten" maintenance items.' EPA fully agrees.

Stormwater

Text and tables from the Nov. 2011 PY3 MS4 Annual Report shown in BLUE:

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination: Subpart 3.2 Watershed Based Storm Sewer System Infrastructure Map. BMP 1 – Develop a watershed based storm sewer system infrastructure map.

MCM 3.2, BMP1, MG2	*Completed*	Map 20% additional Storm Sewer infrastructure	Birch, Penjajawoc, Shaw watersheds complete. New GIS employee to be hired PY4.
MCM 3.2, BMP1, MG3	***Exceeded - 70% Completed***	By PY 5 map all storm sewer infrast. incl. direction of in/out flows, catch	***Completed property boundaries & IC City wide in PY2**

	***in** PY3*	basins, outfalls, etc.	

⇒ On the Feb 14th, 2012 visit the GIS staff was still working on digitizing land parcels from the municipal property tax maps for IC determination. This does not correspond with the statement from the PY3 MS4 report that says – Completed property boundaries & IC city-wide in PY2.

Regarding stormwater assets, the GIS staff at the city did describe what is presented in the PY3 report; all SW assets plan to be mapped by Spring of 2013 (PY5). Also, an additional GIS employee was hired in PY4.

The January 2012 Asset Management Report produced by CH2MHill succinctly declares that the key concepts to asset management are the knowledge of: assets and their characteristics, physical condition of assets and performance of assets. These areas of knowledge are currently being understood by the city through GIS mapping, attribute creation, and flow monitoring. The report identifies the need to expand asset management program to stormwater infrastructure. It is good to see the City is doing this.

BMP 2 - The BASWG will support the development of a regional watershed-based storm sewer infrastructure map with the goal of combining it with the database management tool that will be implemented by the group during the current permit cycle.'

⇒ What are the benefits, other than cost savings in database creation and upkeep, with sharing stormwater infrastructure data between municipalities?

⇒ David Ladd, MEDEP, asked for the following in his PY2 MS4 Annual Report Review Letter dated Sept 8, 2011:

'BMP Dry Weather Inspection Program: The City has a well thought out prioritized dry weather inspection program. I need a link to the on line data, but it appears that the City has expanded this program. Could I get a breakdown by watershed in future reports listing inspections and number of problems (illicit or potential illicit discharges) encountered. In your next annual report for dry weather inspections, provide the number of inspections conducted in each watershed surveyed. I also want to know the total number of "known" outfalls in each watershed. I need # of problems encountered what they were; what follow-up actions were conducted & when follow-up was completed.'

This information was not present in the Nov 22, 2011 - PY3 submittal. Can this information be provided to the EPA for either FY 2011 and/or PY3.

⇒ In the PY2 report review David Ladd also asks that:

'…for Permit Year 3 & 5 annual reports, a more detailed synopsis of the plans impact/assessment [part of MCM 1] will need to follow the table.' (see - Table A. of Section 5.3.1 in PY3 report)

This information was not present in the Nov 22, 2011 - PY3 submittal. Can this information be provided to the EPA for either FY 2011 and/or PY3.

2010 - 2011 Catch Basin Cleaning Report	
Catch basins inspected/cleaned	236 of estimated 3000 basins
Catch basin debris removed	139 Cubic Yards

* Equipment and labor resources were not made available to clean ½ of all basins therefore, Bangor focuses on the toe of steep sloped hills where the fastest filling catch basins are located.

⇒ How are the catch basins at the toe of steep slopes identified? How are the work orders generated from these or other lists of identified locations without a fully implemented CMMS?

MCM 6.6, BMP 1, MG	***Exceeded***	By PY5 evaluate and implement a maint. schedule for conveyances, structures, outfalls	**116 staff hrs worked with CH2MHill & DEP to integrate catch basins into CSO asset management strategy**

⇒ How were catchbasins integrated into the CSO asset management strategy?

⇒ Could a copy of the Stormwater Utility Feasibility Study that was to be completed in PY4 (July 2011) please be forwarded to EPA.

EPA Region 1
Clean Water Act
Inspection Data Entry Form: 3560EZ

Inspector:	Alex Rosenberg	Date form completed:	6/19/2015

Section A: Facility Information						
Inspection start date:	6/19/2013	Inspection end date (if more than one day):	6/19/2013			
NPDES ID:	ME0100781	Federal facility?	No			
Name and Location of Facility Inspected:						
Name:	City of Bangor					
Address:	760 Main St					
City:	Bangor	State:	ME	ZIP:	04401	
Facility On-Site Representative #1:						
Name:	Bradley Moore					
Title:	WWTP Superintendant					
Phone #:	207 992 4471	Fax # / email:	Brad moore@bangormaine.gov			
Facility On-Site Representative #2 (if necessary):						
Name:	Enter text					
Title:	Enter text					
Phone #:	Enter text	Fax # / email:	Enter text			

Section B: Compliance Monitoring Information	
Clean Water Act Section (choose from only one of the following):	
CWA §308[A][B]: NPDES	Combined Sewer Overflows
CWA §311: Oil and Hazardous Substances	Choose an item
CWA §404: Permits for Dredge and Fill Material	Choose an item
Compliance Monitoring Type:	Inspection
Compliance Monitoring Reason:	Core Program

If Agency Priority, then specify priority(s):

OECA - CAFO	☐
OECA - CAFO Region Initiative Areas	☐
OECA - CSOs w/ < 50,000 service population	☐
OECA - CSOs w/ >= 50,000 service population	☐
OECA - MS4s Phase I	☐
OECA - MS4s Phase II	☐
Region 1 - Environmental Justice	☐
Region 1 - Green Economy / Green Infrastructure	☐
Region 1 - Industrial Laundries	☐
Region 1 - Lead Poisoning	☐
Region 1 - Municipal Infrastructure	☐
Region 1 - Pollution Prevention & Resource Conservation	☐

Region 1 - Ship / Boat Yards	☐
Region 1 - Wet Weather	☐

Compliance Monitoring Agency Type:	EPA
Was this a Joint Compliance Monitoring Activity?	No
Which party had the lead?	Choose an item or leave blank if N/A
If State lead, what was the purpose of EPA participation?	Choose an item or leave blank if N/A

Section C: ICDS Information	
Did you observe deficiencies (potential violations) during the inspection?	No
Potential excess emission in violation of regulations:	☐
Potential failure to… … complete or submit a notification, report, certification, or manifest:	☐
… follow a permit condition(s):	☐
… follow a required sample monitoring procedure or laboratory procedure:	☐
… follow or develop a required management practice or procedure:	☒
… identify and manage a regulated waste or pollutant in any media:	☒
… maintain a record or failure to disclose a document:	☐
… maintain/inspect/repair meters, sensors, and recording equipment:	☐
… obtain a permit, product approval, or certification:	☐
… report regulated events such as spills, accidents, etc.:	☐
Potential incorrect use of a material (pesticide, waste, product) or use of an unapproved material:	☐
Potential violation of a compliance schedule in an enforceable order:	☐
If you observed deficiencies, did you communicate the deficiencies to the Facility during the inspection?	No
If yes, did you observe the Facility take any actions during the inspection to address the deficiencies noted?	No
If yes, what actions were taken?	Choose an item
If the Facility reduced pollution, what pollutant was reduced?	Enter text
Did you provide general compliance assistance in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No
Did you provide site-specific compliance assistance in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No

Comments:

Was a RECON for sampling event later in the month. Did not contact city about recon. Plan is now to sample in two weeks after coordinating with the lab.

United State Environmental Protection Agency
Region 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Field Code Changed

Confidential/FOIA Exempt/Not to be Released

Inspection Fields Notes/ Inspection Report

Date: June 7, 2013

Subject: City of Bangor MS4 Audit

City Hall
73 Harlow Street
Bangor, ME 04401

From: Alex Rosenberg, CWA Compliance Officer
Office of Environmental Stewardship

To: FILE

Drafted Date: 6 25 13
Finalized Date: 6 28 13
Reviewed by: Andrew Spejewski
Reviewed date: 7 9 13

I. Facility Information

A. Facility Name: City of Bangor MS4
B. Facility Location: City Hall
73 Harlow Street
Bangor, ME 04401
C. Facility Contact: Bradley Moore 207-992-4471
D. Contact Mailing Address: 760 Main St, Bangor ME 04401
E. Permit #: MER041026

II. Background Information

A. Date of inspection: June 7, 2013
B. Weather Conditions: Clear, dry
C. US EPA Representative(s): Alex Rosenberg, EPA, Inspector - Lead
Andrew Spejewski, EPA, Inspector

D. State/Local Representative(s): David Ladd, MEDEP
E. Previous Enforcement Actions: On-going EPA CSO consent decree from 1990 that is currently being re-negotiated to include all aspects of CWA compliance including MS4

F. City Representatives: Wynne Guglielmo, Environmental Coordinator, Risk Management Division, (207) 992-4255
Bradley Moore, WWTP Superintendent, (207) 992-4471
Peralie Burbank, Engineering, (207) 992-4245
David Gould, AICP, Planner, (207) 992-4280
Brenda Billotte, Code Department

G. EPA MS4 Previous Involvement

EPA inspector, Alex Rosenberg, has conducted a previous MS4 inspection in the City of Bangor September 13, 2012. Subsequent to that inspection and prior to this MS4 audit Alex Rosenberg has drafted a civil litigation report against the City of Bangor that included the MS4 program and therefore a detailed description of the City and its' MS4 program can be found in these documents (dated September 21, 2012).

Pre-Inspection
The inspection was arranged one week in advance by Mr. Rosenberg contacting Wynne Guglielmo via telephone and email.

III. Inspection

Opening Interview

By previous arrangement, all EPA, MEDEP and City personnel arrived at the City Hall at 8:00 AM.

In attendance were:

Wynne Guglielmo, City
Bradley Moore. City
Peralie Burbank. City
Alex Rosenberg, EPA
Andrew Spejewski, EPA
David Ladd, MEDEP

Mr. Spejewski and Mr. Rosenberg showed their credentials. Mr. Rosenberg explained the purpose of the inspection.

All information following, unless otherwise noted, is from statements by City personnel.

System

There are no interconnections with other towns besides stormwater swales that discharge into Bangor from the neighboring municipality of Hamden. There are several other MS4s within the City: MEDOT, UMaine Augusta at Bangor, E Maine Community College, Air National Guard, Dorthea Dix (state offices), and Job Core (a federal program that is a residential community for vocational training). These entities all have individual MS4 permits and are members of the regional stormwater group: Bangor Area Stormwater Group or BASWG. Hussen University is also located in the city, but as a private entity does not require an MS4 permit.

General Program Organization

There has been a high rate of turnover in the City's staff tasked with MS4 program implementation. The City acknowledged that, over the past two years, the rate of turnover has made program management difficult and the City is still working out the details of how the program will be managed among the multiple city departments (e.g., planning, code, community and economic development, wastewater, engineering, finance and risk assessment (environmental), and public works) in the future. During this period of staff turnover, the City has hired and assigned MS4 duties to several individuals knowledgeable about permit requirements including the current environmental manager Wynne Guglielmo and an engineer Peralie Burbank.

The City has worked over the past couple of years on implementing a stormwater utility. The City hopes to have the first stormwater utility bills sent to property owners (not tenants) along with their regularly scheduled July, 2013 sewer bill. Although the City will still allocate funds to support MS4 permit compliance from its general fund, in the future, the plan is to have the stormwater utility provide the full cost of permit compliance (an estimated forty-five dollars per house). Starting in July, the stormwater utility is expected to raise twenty-two dollars per house or approximately half of the estimated cost of the MS4 program.

The City plans to have the wastewater superintendent, Bradley Moore spend twenty-five percent of his time as the manager of the MS4 program, and being ultimately responsible for all compliance activities. Bradley is one of approximately 6 city managers who are just below the City Manager. As wastewater superintendent he manages collection system maintenance crews who are in charge of stormwater catchbasin cleaning and have been in charge of dry weather outfall inspections at certain times in the past.

Education/ Involvement

MCMs 1 and 2 are primarily handled by BASWG. According to Wynne Guglielmo, the city would be in full compliance with MCMs 1 and 2 if the municipality itself did no extra work, , however the City goes beyond basic compliance for these two MCMs. The City had a successful stream cleanup in the fall, with 300 Latter Day Saints volunteers and 25 staff from hotels.

This year the City plans to have the public help with deploying rock baskets in some of the impaired streams – a method of measuring in-stream macro-invertebrate population and health. 70 rain barrels were also given away by the City with instructions on how to install and maintain them.

Plastic 'No Dumping' signs will be installed on the City's catchbasins – they are given to various groups (including Hussen University) to install on their campuses.

The state has also been involved in education and outreach in the region by sponsoring the Think Blue campaign (thinkblue.org). The campaign is one of the nations' leading projects in identifying the effectiveness (audience reached) of stormwater outreach projects.

As part of the stormwater utility creation process the City implemented a stormwater citizens review panel which meets quarterly with Brad and other City officials and staff. This includes business owners and citizens.

Stream Sampling

Weekly stream sampling provides education and outreach as well.

Wynne Guglielmo has been stream sampling in each of the City's five urban impaired streams since February of 2013; parameters tested for are temperature, pH, DO, conductivity. She also has a bench top Nitrate analysis kit which she'll analyze the samples with.

There are no salt water outfalls, so E. coli is the bacteria that is sampled for. The City's POTW has the capability to run E. coli testing and Bradley and Wynne agreed to the fact that a quick screenings for E.Coli of any observed dry weather flows at stormwater outfalls would be a good practice.

The points that Wynne currently samples are not identical to those used by prior consultant.

There is no formal QAPP for the sampling, and data is kept in a log book and is then translated to an excel spreadsheet. Alex Rosenberg advised that without a QAPP, the data may not be useable for state/federal compliance demonstration or defense for or against an enforcement action. Mr. Rosenberg promised to send an example of the EPA Region 1 source tracking protocol as an example of a QAPP.

Wynne stated they would like data sondes for real-time monitoring, a $67,000 investment for six units.

IDDE

Stormwater infrastructure mapping, as prescribed in Part IV.H.3. (MCM 3) of the MS4 Permit, had previously been identified by the City as an area of MS4 compliance deficiency. This was communicated to both the EPA and MEDEP over the past two years. In 2012 the City anticipated it would miss the July 1, 2013 MS4 Permit deadline for mapping all stormwater outfalls and catch basins and would not be able to complete this permit requirement before September, 2014. During the audit, the City indicated that it now expects to meet the permit deadline on time – completion of catchbasin, pipes (with flow direction) and outfalls by the end of the month. EPA inspectors viewed the GIS layers.

The City also plans to work towards integrating its GIS program (that currently houses sewer infrastructure attribute data) with its sewer system evaluation software IT Pipes. The maps include layers, yet to be completed, for nested MS4s, private systems and private control structures.

Inspections

Part IV.H.3. of the MS4 Permit (MCM 3) requires that the City develop and implement a prioritized dry weather outfall inspection plan. The City's protocol for dry weather inspections is not being followed.

In the past dry weather outfall inspections were conducted by two POTW operators who walked stream banks, mapped outfalls, and checked for illicit discharges using a standard form. Jeff Pelletier-Olsen (GIS staff) would then enter the results into spreadsheets, which were stored on City servers.

The field forms and spreadsheet was shown to the inspectors. There was no space to track who did the inspection on the field forms. One entry for Sucker Brook 001 that was reviewed indicated flow and odor and no follow-up was documented.

Wynne explained that inspections have not covered all outfalls within the prioritized watersheds as is required by the MS4 Permit. Additionally, standards are lacking for both the determination of whether follow-up is required from an initial dry weather outfall inspection and the tracking of completed Illicit Discharge Detection and Elimination ('IDDE') follow-up activities. When an illicit discharge is detected by City personnel, and is then eliminated, Wynne creates a timeline of events to print to a file. She will include any press releases associated with the occurrence in the file.

The City does not inspect all newly separated stormwater outfalls.

Construction

Public projects (City projects) are inspected by the Engineering Dept. on a daily basis. Tim Smith and Ted Trembly are engineering staff who have gone through stormwater inspection training.

Private projects are inspected by Code Enforcement out of the code department. In March, Jeremy Martin, the lead code enforcement inspector went out for a family emergency, and has only been working very occasionally since then [he was out the day of the audit].

Brenda Billotte is filling in; she was in the Health department prior.

Brenda arrived at the audit to be interviewed during the in office review. Brenda took a 1-day erosion control class in November 2012, and has inspected with Wynne once and never by herself.

Brenda explained the process for a construction site application being given by the City. Current practice is that when a building permit is issued it triggers a letter to be sent to the contractor that mentions the state Construction General Permit (usually this letter is given by hand to the permittee when they come to city hall). No mention is made of either the MS4 program or the 1 acre disturbed area threshold for MS4 tracking purposes.

Part IV.H.4.a. of the MS4 Permit (MCM 4) is a set of required strategies for implementing an enforceable program to reduce pollutants from construction site stormwater runoff. Strategy H.4.a. ii. requires the City to document every construction activity that disturbs one or more acres within the urbanized area. The City does not have a list of such activities and is therefore unable to track construction project status and the inspections that must correspond with distinct phases of each project. The City's internal system for construction permit application, approval and issuance of a certificate of occupancy involve multiple departments (e.g., planning, code, community and economic development, wastewater, engineering, finance and risk assessment (environmental), and public works).

Post Construction

Jeremy M., the code enforcement officer sends a letter asking property owners to submit maintenance plans to the Code department, which will pass to Engineering for review and inspection.

David Gould, City Planner, came to the audit's *opening interview* to answer questions about plan review. He stated that the standard that is tried to be upheld is to allow no downstream disturbance from post-construction run-off from a project. Engineering does the review and generally contacts the applicants if any changes are necessary; Planning will usually only hear from Engineering if there is a major problem (or when Engineering are ready to sign-off). After this brief discussion, David then left the audit.

Brenda stated that Code has a database that tracks building permit applications, but it only tracks applications for building permits and applications for certificates of occupancy. The only way to determine if a final Certificate of Occupancy has been issued is to check the paper files.

Wynne described what she sees as a good future plan of action for post construction monitoring:

1 - Letter would go out to property owner from code department to generate list of applicable properties for MS4 program
2 – Plans would go between code – planning – engineering and back to planning;
3 – Code communicates to permittee.

Construction File Review

The following files in the Code Department were reviewed:

1 - Bangor Baptist; the file included an April 25, 2012 letter from ME DEP saying that the 8,000 sq ft addition on an existing parking lot does not require a state SW permit.

2 - Verizon/Telecom Drive; Nov 14, 2011 application for certificate of occupancy. Plans describe the project as removing 146 spaces of parking lot and replacing with new parking lot of 15,000 sq ft. A separate file had a letter to town saying the project was >1 acre but would get a Permit By Rule from the state construction stormwater permit. There was no planning board approval in the file even though the City requires this approval for any project greater than 10,000 sq. ft.. Also no approved or signed certificate of occupancy.

A permit by rule application was found in the file, dated 12/1/11 which is handled by the MEDEP (Jim Beyer's group).

3 – 17 Deer Pond; Residential building permit; not a complete file but also not applicable to MS4 program due to square footage.

4 – CNG; Large construction project with the following project dates notes – application for certificate of occupancy 4/17/13, application for building permit 6/3/13 and sediment pond plan 5/30/13.

Brenda explained that sometime the file will have more more than one application if a project has more than one phase, etc..

[break for lunch]

Housekeeping

At the DPW offices the inspectors interviewed the DPW Director Dana G.

While the POTW generally runs the sanitary sewer system, including repairs, DPW would repair broken storm sewer pipe.

Depending on the weather the City has one or two DPW crews employed at sewer and stormwater maintenance. Grit that is removed from stormwater catchbasins is put onto the bermed area or is taken to a permitted compost facility.

Streets are swept starting in spring, with a concentrated effort to cover the entire City. Thereafter downtown is swept weekly, and other areas regularly. School and City parking lots are swept. The City has three vacuum sweepers. Grit goes to another City site. The DPW yard is swept weekly. Street sweeping is conducted for 32 shift hours, five days a week for 6-8 weeks a year until October. Hot spots are defined

Catchbasin cleaning is done with both a clamshell and vacuum truck. The City plans to clean each catchbasin twice per year, with measurements of depth and sediment removed so that, in a couple years, they can determine the necessary frequency of cleaning. Foremen know a couple low-lying areas that require more frequent cleaning; the list is not written anywhere. Dana estimates 3,000 or more catchbasin.

Salt: All de-icing trucks are ground-speed controlled. Salt/sand mix in residential areas and some country roads. Downtown, only salt (as required by MEDEP air regulations). Average use per year is 6,000 yards of salt.

There is no routine replacement plan for storm sewer pipe. Lots of issues were found when the outfalls were mapped. The City is currently using IT Pipes, an asset management software package, for sanitary sewer and is planning on adding storm sewer to it as well.

Landscaping: DPW helps with some cemeteries, mostly just digging and filling. The only pesticide applications that Dana is aware of is at the golf course. Pest control for parks and schools is contracted out.

City Stormwater Permits

The wastewater POTW multi-sector general stormwater permit ("MSGP") is being folded into their NPDES permit. The DPWs' fleet maintenance yard had an individual MSGP but this is being folded into the City's MS4 permit. Bangor Area Transit is a City owned transportation group that has its own MSGP.

School buses are privately owned.

[At this point, all of the inspectors and Wynne Guglielmo visited two sites the DPWs' Fleet Maintenance Garage and the City's convention center contruction and demolition site (contracted to Cianbro).]

The DPW Fleet Maintenance garage and yard were immaculately clean. SPCC plan was up to date and in full-compliance.

Cianbro managed construction site. Sediment catchbasin filters were installed in all catchbasins. According to staff, sweeping is conducted approximately 8 times per day or more if needed. Paperwork was available for all stormwater inspections as required by the Permit.

Exit Interview

Mr. Spejewski and Mr. Rosenberg gathered the all the City personnel who were present at the opening interview into the conference room at the POTW to hold an exit interview. The only new face at the meeting was Art Morgan, the City's Engineering Director. EPA inspectors praised the City's transparency, hiring and work on the utility. Deficiencies with regard to compliance with the MS4 permit were summarized as the following list:

- IDDE program; dry weather inspection and follow-up protocol must be better implemented;
- Management; ensure that the program lead has authority and ability to coordinate across so many different departments; and
- Construction program must be better managed to allow for tracking of projects and their respective phases.

United States Environmental Protection Agency
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUN 2 8 2013

Bradley Moore, Superintendent
City of Bangor Wastewater Treatment Plant
760 Main Street
Bangor, ME 04401

Re: June 7, 2013 MS4 Audit, City of Bangor

Dear Mr. Moore:

The U.S. Environmental Protection Agency ("EPA") conducted a compliance audit of the City of Bangor's 2008 General Municipal Separate Storm Sewer System ("MS4") permit #MER041026 (the "Permit") on June 7, 2013. Although EPA led the audit, the state MS4 coordinator from the Maine Department of Environmental Protection ("MEDEP") was also present at the audit.

The audit assessed the City's programmatic management and compliance with each of the six Minimum Control Measures ("MCMs") that are requirements within the MS4 permit. The audit showed that there were several areas where the City needs to take action to bring itself in full compliance with the MS4 Permit requirements. During the audits' exit interview, the City requested that EPA send a written summary of its findings to the City. This letter is written in response to that request and contains a summary of EPA's findings and what was discussed during the exit interview.

There has been a high rate of turnover in the City's staff tasked with MS4 program implementation. The City acknowledged that, over the past two years, the rate of turnover has made program management difficult and the City is still working out the details of how the program will be managed among the multiple city departments (e.g., planning, code, community and economic development, wastewater, engineering, finance and risk assessment (environmental), and public works) in the future. During this period of staff turnover, the City has hired and assigned MS4 duties to several individuals knowledgeable about permit requirements. The City has worked over the past couple of years on implementing a stormwater utility. The City hopes to have the first stormwater utility bills sent to property owners along with their regularly scheduled July, 2013 sewer bill. Although the City will still allocate funds to support MS4 permit compliance from its general fund, in the future, the plan is to have the stormwater utility provide the full

cost of permit compliance (an estimated forty-five dollars per house). Starting in July, the stormwater utility is expected to raise twenty-two dollars per house or approximately half of the estimated cost of the MS4 program.

The City plans to have the wastewater superintendent spend twenty-five percent of his time as the manager of the MS4 program, and being ultimately responsible for all compliance activities. Going forward, the City needs to diligently evaluate the effectiveness of this arrangement.

Stormwater infrastructure mapping, as prescribed in Part IV.H.3. (MCM 3) of the MS4 Permit, had previously been identified by the City as an area of MS4 compliance deficiency. This was communicated to both the EPA and MEDEP over the past two years. In 2012 the City anticipated it would miss the July 1, 2013 MS4 Permit deadline for mapping all stormwater outfalls and catch basins and would not be able to complete this permit requirement before September, 2014. During the audit, the City indicated that it now expects to meet the permit deadline on time. The City also plans to work towards integrating its GIS program (that currently houses sewer infrastructure attribute data) with its sewer system evaluation software *IT Pipes*.

Part IV.H.3. of the MS4 Permit (MCM 3) also requires that the City develop and implement a prioritized dry weather outfall inspection plan. The City's protocol for dry weather inspections is not being followed. Inspections have not covered all outfalls within the prioritized watersheds as is required by the MS4 Permit. Additionally, standards are lacking for both the determination of whether follow-up is required from an initial dry weather outfall inspection and the tracking of completed Illicit Discharge Detection and Elimination ('IDDE') follow-up activities. The City needs to create and implement standards for conducting and tracking dry weather outfall inspection and follow-up activities in the required watersheds. The City should also systematically inspect all newly separated stormwater outfalls.

Part IV.H.4.a. of the MS4 Permit (MCM 4) is a set of required strategies for implementing an enforceable program to reduce pollutants from construction site stormwater runoff. Strategy H.4.a. ii. requires the City to document every construction activity that disturbs one or more acres within the urbanized area. The City does not have a list of such activities and is therefore unable to track construction project status and the inspections that must correspond with distinct phases of each project. The City's internal system for construction permit application, approval and issuance of a certificate of occupancy involve multiple departments (e.g., planning, code, community and economic development, wastewater, engineering, finance and risk assessment (environmental), and public works). A system must be implemented across these departments to allow for MS4 permit compliance.

In closing, EPA expects the City to address all MS4 program deficiencies identified during the audit as noted in this letter and that any problems or delays in moving toward compliance will be immediately communicated to EPA. The City should include in its next annual MS4 report to the MEDEP an update on its progress toward addressing the

identified deficiencies. Please copy EPA on this report. EPA and the MEDEP remain committed to assisting the City with its MS4 Permit compliance efforts.

If you or your staff have any questions regarding these findings, please contact me by phone at 617-918-1709 or by email at rosenberg.alex@epa.gov. Thank you again for accommodating us during the audit.

Sincerely,

Alex Rosenberg, Compliance and Enforcement Officer
Office of Environmental Stewardship

cc: Wynne Guglielmo, Environmental Coordinator, City of Bangor
Art Morgan, Director of Engineering, City of Bangor
David Ladd, MEDEP
Brian Kavanah, MEDEP
Denny Dart, EPA

United State Environmental Protection Agency
Region 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Confidential/FOIA Exempt/Not to be Released

Inspection Fields Notes/ Inspection Report

Date: September 13, 2012

Subject: City of Bangor MS4 Inspection

Engineering Department
73 Harlow Street
Bangor, ME 04401

From: Alex Rosenberg, CWA Compliance Officer
Office of Environmental Stewardship

To: FILE

General Information:

All pictures taken on the inspection can be seen in the K Share @ Inspection Documents/Inspection Reports/Maine/City of Bangor/2012-9-13 City of Bangor MS4.

In-Briefing:

On September 19, 2012 the Region[1] was invited by Wynne Guglielmo (Environmental Manager for the City of Bangor) to attend the Bangor Area Stormwater Group's monthly meeting and then to tour stormwater BMP projects in the City of Bangor. David Ladd, Maine's MS4 coordinator attended both the meeting and tour.

BASWG Meeting:

The group discussed the role and make-up of the public outreach committee and what type of clothing design would be most worn for a general stream clean-up effort. I was introduced to the group. David Ladd was asked when the MS4 stakeholders would be given a chance to review proposed permit language for the 2013 MS4 permit reissuance. No answer was given by Mr. Ladd.

After the meeting, Wynne, Ladd and I sat and looked at some maps that Wynne had printed by the City of Bangor's GIS department. They depicted a large number of

[1] *Alex Rosenberg*

(approximately 3000) catchbasins and other stormwater infrastructure such as outfalls, and pipes. One map specifically displayed the stormwater BMPs that had been constructed by the City.

It appeared that a large portion of the stormwater infrastructure has been mapped, contrary to the City's insistence at meeting after meeting that they have not inventoried or mapped their complete stormwater infrastructure as of yet, and that this process will be done in 2014.

Alex Rosenberg presented his credentials to Wynne at this sit down opening interview.

Site Visit:

Sylvan Road – A perched culvert has been removed and a new culvert is being installed. Bank stabilization is planned as well as rip-rap of the flood plain surrounding the culverted area. In the same area the city has removed a water main and have installed a natural bottom arch on a road bypass downstream.

Art Morgan, who joined the site walk noted that Penjajawok stream restoration had finished 1,400 linear feet out of 98,000 total.

I took many pictures of this project and the stream upstream of this where between the Olive Garden restaurant and the K-mart the stream had been 'ripple enhanced' according to Art and Wynne. According to the city this has oxygenated the stream along with a groundwater underdrain that has been daylighted.

K-mart parking lot – According to Mr. Morgan, K-mart paid for porous pavement with the non-porous pavement section (1/3 of total area) draining to a detention pond which is now ill-maintained because the company isn't doing proper maintenance. Inspector observed the detention pond, and attests to the fact that it is not being maintained.

When the city redevelops Main Square Mall and McDonalds, Mr. Morgan hopes to implement similar sw BMP for the pervious areas.

Marsh – According to the city, there have been emplaced city ordinances to preserve and protect the marsh environment next to the Home Depot parking lot. A 200' buffer was established besides the box store and a 600' buffer from any residential neighbors. According to Mr. Morgan there have been a history of beavers in the Marsh below Stillwater Ave. which have disrupted the ecosystem and residents. By preserving the Marsh above Stillwater Ave. the city hopes to leave the beavers a large enough habitat where they can live and work.

River Bank – The group of inspectors and city officials visited the river bank 'shoreland' park on the Penobscot where according to Mr. Morgan the city has installed stormceptor units underneath the parking lot, treebox filters, dog poop bag stations and a rain garden.

He also mentioned that the city has just awarded the contract to have bio-retention cells also be installed between the downtown parking lot and the river.

Alex Rosenberg noted a flowing 6' diameter concrete outfall across the river in the city of Brewer, ME.

DPW Maintenance Headquarters – According to Mr. Morgan the DPW conducts pre-wetting when the temperature is below 20 degrees Farenheit during pre-storm conditions. He continued to explain that residential streets have anti-icing applied and that all of the sanding and de-icing activities are dispensed by computerized trucks. Residential and Country roads get sand applications.

The parking lot of the DPW headquarters, according to Mr. Morgan is going to have 5 Fabco bags emplaced in their stormwater drains. The city has 3 vac sweeper trucks and budgets 275$ thousand dollars on sweeping annually according to Mr. Morgan.

Airport Stream – According to all present on the inspection, stormwater runoff from the DPW parking lot is discharged to this stream that creates a perimeter for the airport and is located approximately 200 meters from the DPW parking lot. According to Mr. Ladd, Gregg Bean of the MEDEP has been sampling this stream and coordinating the stream restoration projects. The stream runs along Union Avenue and under the airport before daylighting at this point next to the DPW. The stream then enters a spillway and weir before it discharges and becomes the headwaters of Birch Stream.

According to Mr. Morgan, Robert Beaton, manager of the Bangor International Airport (environmental division?) is in charge of stream protection when it is on or under the airport property.

DPW Maintenance Garage – Wynne Guglielmo stated that the maintenance garage was cited for RCRA violations 10 years ago. Wynne also mentioned that the facility has two USTs for leaded and unleaded gasoline. As time did not permit entry into the garage, nothing else was learned about the facility other than the fact that all DPW vehicles are maintained within the garage.

Bangor International Airport (BIA) tank farm – Facility representative Ricky Howard met us as we entered the site. The contact phone number for the site is 207-992-4643. According to Wynne, who stated that she has ultimate oversight authority for this facility in her position as environmental manager of the city, Robert Beaton manages this site which has a 2 Million gallon capacity to hold both Jet fuel and regular fuel. The compliance officer for the airport is Rodney Madden, who Wynne oversees.

I quickly looked at the plan and noted that it was dated 2/29/12 and was signed by Robert Beaton. The substantial harm criteria checklist 40 CFR 112.20(e) was not signed. According to Wynne, Rodney believes that the airport only needs the signed plan within a half mile of the facility. Wynne disagrees with him and believes that one should be kept on site.

A site walk was conducted to inspect all of the ASTs on site. The large capacity oil tanks were well maintained and were clearly marked as to when the last inspections were and when the next inspections need to be scheduled. Containment areas were impeccably kept.

The vehicle fueling area had a stormwater catchbasin between the berms used as general secondary containment. No spill kits were identifiable when standing at the fueling station. The Jet A fuel sump tank container was uncontained, and was located approximately 10 feet from the catchbasin inside the fueling area. The re-fueling hoses were on the ground within the potentially trafficked area of the entrance driveway (also the fueling area). No locks were on the fuel hoses and therefore there existed a threat to vandalism and release of oil. The facility does have security lights, cameras and a locked gate.

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__10/19/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road **Signature**: _Amanda Soucier_____
Post-Construction Post-Rain Inspection

Urban Impaired Watershed: __Penjajawoc_____(**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes □ X** **No □**

If no, state corrective action and date completed_____

Is there offsite tracking of sediment or fill material? **Yes □** **No □X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes □X** **No □**

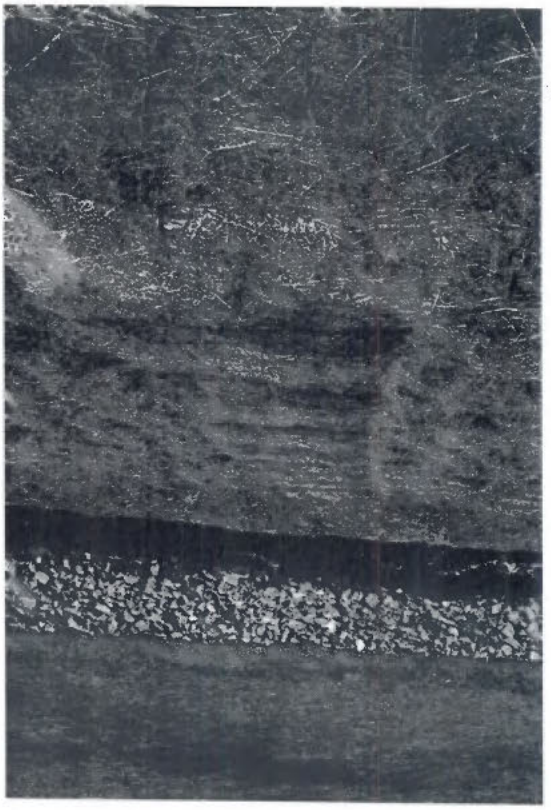
If no, state corrective action and date completed_____

Are there signs of Sedimentation leaving the site? **Yes □ X** **No □**

If yes, state corrective action & date completed_Washout was observed on Sylvan side slope, which is steep and loamed, seeded, and mulched shortly before rainfall and did not have much time to establish before rainfall._____

Are additional BMPs required for drainage or erosion control? **Yes □X** **No □**
Contractor restabilized slope with erosion control fabric in washout areas.

Photos Taken ____Yes __



Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeff Mark **Date:** 1-17-13

Name of Site/Project: Bangor Bypass **Signature:**

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

mid-phase

Name of Inspector: Wayne J. Gagliolino **Date:** May 30, 2013

Name of Site/Project: CNG Terminal White Construction **Signature:** [signature]

Urban Impaired Watershed: Birch - near Dam (Arctic Brook, Birch Stream, Capehart **Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed N/A

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed N/A

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐ (WJG)

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed N/A

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed a sed pond was added; mulch Berms + silt fencing protecting BIA / treatment pond + Dam / conveyance to Birch Strea

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ART MORGAN Date: 3/14/13

Name of Site/Project: UNION ST. (SEWER SERVICE 193 BROAD ST.) Signature: Art B Morgan

Urban Impaired **Watershed**: PENOBSCOT RIVER (**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes** ☐ No ☒ 12:50PM

If no, state corrective action and date completed ASKED THAT DOWN STREAM CB BE PROTECTED FROM SILT
RETURN TO SITE @ 4:30 NO CORRECT ACTION TAKEN - HOWEVER PUMPING WAS NOT CONTINUING

Is there offsite tracking of sediment or fill material? **Yes** ☒ **No** ☐

If yes, state corrective action and date completed NO PRECIP PREDICTED, DIRECTED CONTRACTOR TO SWEEP IN AM - 3/15/13, 8:20AM. STOP IN. AREA HAD BEEN SWEEP

Are onsite drainage control structures functioning properly? **Yes** ☐ No ☒

If no, state corrective action and date completed WORK COMPLETED

Are there signs of Sedimentation leaving the site? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed 3/15/13 – AREA HAD BEEN SWEPT

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed DOWN GRADE CB'S NEED TO BE PROTECTED

Photos Taken

Post - **Construction Inspection Form –City of Bangor, Maine MS4 PY5**

Name of Inspector: Wynne Guglielmo **Date:** May 31 2013

Name of Site/Project: Sylvan Rd Culvert Removal **Signature:** Wynne Guglielmo

Urban Impaired Watershed: Penjajawoc **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed ____________

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed ____________

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed ____________

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed ____________

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed The grass is growing in very tall thin & sparse. It isn't short dense & thick which will allow for the capture of sediment on both sides of the slope. Contacted project manager Amanda Bowen via voice mail

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Wayne J. Coughlan **Date:** March 14 2013

Name of Site/Project: Aerial Super **Signature:** Wayne J. Coughlan

Urban Impaired Watershed: Birch **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Post-construction follow-up.
Site looks great!

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeffrey Allen Date: 10/22/2012

Name of Site/Project: Illuminated Walkway Signature: Jeffrey Allen

~~Urban Impaired~~ Watershed: Penobscot River (Arctic Brook, Birch Stream, Capehart Brook, Penjejawoc Stream, Shaw Brook, Sucker Brook)

1.8+ inches of rain 10/20/12 in ~2hrs. Some evidence of ponding in front of Bark Mulch Berms but no breaches.

Is Proper Erosion Control Systems Employed? Yes ☑ No ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? Yes ☐ No ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? Yes ☑ No ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? Yes ☐ No ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? Yes ☐ No ☑

If yes, state corrective action & date completed _____

Were photos taken? Yes ☑ No ☐

If yes, list file names and location engineering / Projects_Misc / Illuminated Waterfront walkway / Photos / 10-22-12 shows areas of ponding prior to filtering through Bark Mulch Berm.

Post-**Construction Inspection Form –City of Bangor, Maine MS4 PY5**

Name of Inspector: Wynne Guglielmo **Date:** May 31 2013

Name of Site/Project: Sylvan Rd Culvert Removal **Signature:** [signature]

Urban Impaired Watershed: Penjajawoc **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed ______

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed ______

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed ______

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed ______

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed The grass is growing in very tall thin & sparse. It isn't short, dense & thick which will allow for the capture of sediment on both sides of the slope. Contacted project manager [illegible] [illegible] avoid [illegible]

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Wayne J. Guglielmo **Date:** March 14 2013

Name of Site/Project: Aerial Super **Signature**

Urban Impaired Watershed: Birch **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Post-construction follow-up.
Site looks great!

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Wynne Guglielmo **Date:** April 5, 2013 cert # 1585

Name of Site/Project: Broadway Lateral Sewer Easement **Signature:** Wynne J. Guglielmo

Urban Impaired Watershed: *No but Shoreland Zoning Project– Burly Brook* **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed?	**Yes X**	No □
If no, state corrective action and date completed NA		
Is there offsite tracking of sediment or fill material?	**Yes** □	No X
If yes, state corrective action and date completed NA		
Are onsite drainage control structures functioning properly?	**Yes X**	No □
If no, state corrective action and date completed NA		
Are there signs of Sedimentation leaving the site?	**Yes** □	**No X**
If yes, state corrective action & date completed NA		
Are additional BMPs required for drainage or erosion control?	**Yes X**	**No** □

If yes, state corrective action & date completed: Requested that entire Roadway is mulched. Silt fencing, rip rap and double mulching is present along the entire project adjacent to Burly Brook. Before the end of the day, Friday, April 05, 2013, the entire roadway is to be mulched.

Construction Inspection Form –City of Bangor, Maine MS4 PY5 Midway

Name of Inspector: [illegible] **Date:** Nov 14 2012

Name of Site/Project: Sylvan Rd culvert **Signature:** [illegible]

Urban Impaired Watershed: Penjajawoc __(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☐ **No** ☒

If no, state corrective action and date completed – in process – [illegible] coconut jute mat would work

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed ______

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ☐

If no, state corrective action and date completed N/A

Are there signs of Sedimentation leaving the site? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed wash-outs + gulleys on slopes

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed [illegible] mulch, bales [illegible]

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeffrey Allen **Date:** 10/22/2012

Name of Site/Project: Concert Venue **Signature:** Jeffrey Allen

~~Urban Impaired~~ **Watershed:** Penobscot River **(Arctic Brook, Birch Stream, Capehart Brook, Penjejawoc Stream, Shaw Brook, Sucker Brook)** 1.8+ inches of rain in 2 hrs on 10/20/12.

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☑ **No** ☐

If yes, state corrective action and date completed silt detained in parking lot by silt sock in CB removed today by laborer

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Were photos taken? **Yes** ☐ **No** ☑

If yes, list file names and location _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeff Smith **Date:** 5-10-12

Name of Site/Project: AD Foundation - 54 Blackstar **Signature:**

Urban Impaired Watershed: Kenduskeag **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☐ **No** ☒

If no, state corrective action and date completed Mulch hay - spoke with contractor

Is there offsite tracking of sediment or fill material? **Yes** ☒ **No** ☐

If yes, state corrective action and date completed soil in road dug gutter to catch Basin - spoke w. PE contractor

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ☐

If no, state corrective action and date completed N/A

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☐

If yes, state corrective action & date completed yes to catch basin

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed silt fence Mulch hay -

Photos Taken

follow up same day - issues addressed

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jay P Mark **Date:** 7-17-12

Name of Site/Project: 21 Deer Pond **Signature:** [signature]

Urban Impaired Watershed: Kenduskeag Stream **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐ N/A

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jerry [illegible] Date: 5-29-12

Name of Site/Project: 6 Telcon Dr. Verizon Wireless Signature: [signature]

Urban Impaired Watershed: Birch St. (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Is Proper Erosion Control Systems Employed? Yes ☐ No ☒

If no, state corrective action and date completed silt fence not toed in. spoke w/ contractor silt fence installed correctly after phone call to contractor per contractor completed 5-29

Is there offsite tracking of sediment or fill material? Yes ☐ No ☐

If yes, state corrective action and date completed

Are onsite drainage control structures functioning properly? Yes ☒ No ☐

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? Yes ☐ No ☒

If yes, state corrective action & date completed

Are additional BMPs required for drainage or erosion control? Yes ☒ No ☐

If yes, state corrective action & date completed reinspected 6-6-12 verified compliance

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: jeremy P. Mank **Date:** 7/17/12

Name of Site/Project: @ Telcom Jason Wireless **Signature:** [signature]

Urban Impaired Watershed: Birch St. **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken No

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services
Paul R. LePage, Governor Mary C. Mayhew, Commissioner

Department of Health and Human Services
Health and Environmental Testing Laboratory
221 State Street
12 State House Station
Augusta, Maine 04333-0012
Tel: (207) 287-2727; Fax: (207) 287-6832
TTY: 1-800-606-0215

Logged: 7/8/2013 5:07:00PM
Folder/ Invoice # **I031457**

Office Use Only:
Line Item
USEPA3

PAID

Released: 7/10/2013
Case #:

ERIN TRAINOR
US ENVIRONMENTAL PROTECTION AGENCY
11 TECHNOLOGY DRIVE
NORTH CHELMSFORD MA 01863 Fax#:

Project Name: BANGOR 070BB

No. of Samples in Folder: 6

I031457001
I031457002
I031457003
I031457004
I031457005
I031457006

CERTIFICATION

The HETL hereby certifies that all test results for this report were analyzed by the method listed and meet all NELAC requirements, unless otherwise noted.

Kenneth G. Pote, PhD., Director Richard French, Quality Assurance Officer

If we can be of further assistance to you, Please Call us at 287-1716

Approved by: Thomas Crosby

Thomas Crosby
Inorganics Supervisor/Chemist III

CC:

7/10/2013 10:31:26AM

Continued from Previous Page HETL Folder Number: **I031457**

HETL Sample Number: I031457001 Description: PJ-2-3 NP-H20

Matrix: NP-H20 Sample Point:

Sampler: ALEX ROSENBERG Sample Date: 7/8/2013 Time: 12:50:00

Analyte	Result	Units	Qualifier	RL	Method	Analyst	Analysis Datetime
E. coli	**1300**	**MPN/100 ml**		1.0	9223 B	johnc	07/08/2013, 17:58

HETL Sample Number: I031457002 Description: PJ-04 NP-H20

Matrix: NP-H20 Sample Point:

Sampler: ALEX ROSENBERG Sample Date: 7/8/2013 Time: 13:10:00

Analyte	Result	Units	Qualifier	RL	Method	Analyst	Analysis Datetime
E. coli	**488.**	**MPN/100 ml**		1.0	9223 B	johnc	07/08/2013, 17:58

HETL Sample Number: I031457003 Description: CB-01 NP-H20

Matrix: NP-H20 Sample Point:

Sampler: ALEX ROSENBERG Sample Date: 7/8/2013 Time: 14:00:00

Analyte	Result	Units	Qualifier	RL	Method	Analyst	Analysis Datetime
E. coli	**2620.**	**MPN/100 ml**		100	9223 B	johnc	07/08/2013, 17:58

HETL Sample Number: I031457004 Description: BR-04 NP-H20

Matrix: NP-H20 Sample Point:

Sampler: ALEX ROSENBERG Sample Date: 7/8/2013 Time: 14:55:00

Analyte	Result	Units	Qualifier	RL	Method	Analyst	Analysis Datetime
E. coli	**1300**	**MPN/100 ml**		1.0	9223 B	johnc	07/08/2013, 17:58

HETL Sample Number: I031457005 Description: BRBBHYB NP-H20

Matrix: NP-H20 Sample Point:

Sampler: ALEX ROSENBERG Sample Date: 7/8/2013 Time: 15:00:00

Continued from Previous Page HETL Folder Number: I031457

Analyte	Result	Units	Qualifier	RL	Method	Analyst	Analysis Datetime
E. coli	687	MPN/100 ml		1.0	9223 B	johnc	07/08/2013, 17:58

HETL Sample Number: I031457006 Description: BR-01 NP-H20

Matrix: NP-H20 Sample Point:

Sampler: ALEX ROSENBERG Sample Date: 7/8/2013 Time: 15:40:00

Analyte	Result	Units	Qualifier	RL	Method	Analyst	Analysis Datetime
E. coli	1553.	MPN/100 ml		1.0	9223 B	johnc	07/08/2013, 17:58

Continued from Previous Page HETL Folder Number: I031457

Units & Measurement

"mg/L" = Milligrams per liter; "ug/L" = Micrograms per Liter; "mg/Kg" = Milligrams per Kilogram;
"ug/Kg" = Micrograms per Kilogram; "PPM" = Parts per Million; "NTU" = Nephelometric Turbidity Units;

All solid results on a "Dry Weight" basis

NC = Not confirmed NQ = Not Quantitated NA = Not Analyzed J = Approximately U = Undetected R = Rejected

RL-Reporting Limit, the lowest concentration which can be reliably reported on a routine basis
"<" = Less than ">" = Greater than

Note: Results below the advisory limit, including < and K are considered satisfactory for that parameter.

Disclaimer

Your report consists of the number of pages listed on the cover page. Any attachments after the last numbered page are for informational purposes only and not part of the formal report.

The results in this report are for the submitted sample(s) only.

This report shall not be reproduced, except in full, without written permission from the Maine Health and Environmental Testing Laboratory.

State of Maine
Health and Environmental Testing Lab
221 State Street Station #12 Augusta, ME 04333-0012
Phone (207) 287 – 2727 Fax (207) 287-1884

Chain - of - Custody

I031457

Sample Date: 7/8/13
Town/County: BANGOR
Project Name: BANGOR070813

Company: US ENVIRONMENTAL PROTECTION AGENCY 11 TECHNOLOGY DRIVE	Appropriation/PO#	Compliance sample Y / N	
Contact: NORTH CHELMSFORD, MA 01863 Kit # 233047	Bill To:	Copy To:	
Address: ECOLI_QUANT-EFFLUENT I031457 USEPA3	Address:	Address	
Phone: This kit expires on 7 5 2014	Phone: Fax:	Phone:	Fax:
e-Mail address:	e-Mail address:	e-Mail address	

Sample ID	Sample time	Preservation	Container vol	Container type	Quantity	Grab or Composite	Matrix: Ground Water Waste Water Drinking Water Solids Other	Analyses Required	HETL Number
PJ-2-3	1250							ECOLI Quant Effluent	I031457-001
PJ-04	1310							↓	002
CB-01	1400							↓	003
BR-04	1455							↓	004
BREE !! PD	1300							↓	005
BR-01	1540							↓	006

Notes:

Sampled By: Alex Rosenberg	Date/Time: 7/8/13	Received By:	Date/Time:
Relinquished By: [signature]	Date/Time:	Received By: [signature]	Date/Time: JUL 08'13 PM 5:02:38 RC
Relinquished By:	Date/Time:	Received By:	Date/Time:
Rush (Yes or No)	Fax Results (Yes or No)	Custody seal intact (Yes or No)	Temperature on Arrival <3 °C

If the sample is deemed hazardous it may be returned to the client at your expense for proper disposal

rev 5/11/07

By signing this Chain-of-Custody you agree that the limit of The HETL's liability to be the cost of the analytical fees in question

2013 Sweeping and Catch Basin Report

Catch Basins Cleaned	87	
Catch Basin Debris	18	Cu Yds
Sweepings	834	Cu Yds
Sweeping Manhours	618	Manhours
Miles swept	1159	Miles

Streets are swept daily Monday thru Friday.This usually starts March or 1st of April and runs until November according to the type of weather we get as it nears winter. The above figures are from 3/4/13 to present.

CATCH BASIN CLEANING & EVALUATIONS FY 13

BASIN CONSTRUCTION & CONDITION

Date	Eval by	District	CB #	GPS Coordinates	Physical Location	Cover		Frame		Risers	Bricks		Walls		Base		Inlets			Outlet		Trap		Diameter	TOF-Water	TOF-Solid	TOF-Bottom	Sump	Grit (Cu. Yds)
						Type	Condition	Type	Condition	# of	Rows	Condition	Type	Condition	Type	Condition	# of	Size	Condition	Size	Condition	Y or N	Condition						
7/10/12	Turner E			N44°48.572W068°46.276	Salvation Army S Park	Round	Good			2	0		Concrete	Good	Concrete	Good	no			8"	Good	Yes	Steel	4.00	4.67	6.75	7.92	3.25	0.54
7/10/12	Turner E			N44°48.582W068°46.239	S Park #75	Round	Good	Round 4"	Good	0	0		Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	3.92	4.75	6.00	2.08	0.58
7/10/12	Turner E			N44°48.586W068°46.236	S Park @ Park	Round	Good	Round 6"	Poor	0	All	Fair	Brick	Fair	Brick	Fair	no			12"	Good	No		4.00	6.08	7.92	9.08	3.00	0.54
7/10/12	Turner E			N44°48.576W068°46.279	S Park across Salvation Army	Round		Round 4"			All	Poor	Brick	Poor	Brick	Poor	yes	16"		8"		Yes			6.17	8.83	9.33	3.16	0.00
7/10/12	Turner E			N44°49.130W068°46.719	53 Pleasant View	Round	Good	Round 4"	Good	0	2	Poor	Concrete	Good	Concrete	Good	yes	12"	Good	15"	Good	No		4.00	5.50	7.50	9.42	3.92	0.89
7/10/12	Turner E			N44°49.133W068°46.702	Fowler House Side	Round	Good	Round 6"	Good	0	3	Good	Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	3.83	4.42	5.92	2.09	0.70
7/10/12	Turner E			N44°49.135W068°46.712	Fowler Wall Side	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	yes	12"15"	Good	15"	Good	No		4.00	4.42	5.17		-4.42	-2.41
7/10/12	Turner E			N44°49.125W068°46.725	54 Pleasant View	Round	Good	Round 4"	Good	0	2	Good	Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	4.92	5.83	8.92	4.00	1.44
7/10/12	Turner E			N44°49.929W068°46.440	21 Labarca	Square	Good	Square 3"	Good	0	0		Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	3.25	3.67	4.67	1.42	0.47
7/10/12	Turner E			N44°49.929W068°46.434	20 Labarca	Round	Good	Round 6"	Good	0	1	Poor	Concrete	Good	Concrete	Good	yes	12"	Good	15"	Good	No		4.00	3.83	4.42	5.17	1.34	0.35
7/10/12	Turner E			N44°49.967W068°46.444	Labarca @ Greenfield Middle of Road	Round	Good	Round 4"	Good	1	0		Concrete	Good	Concrete	Good	yes	15"18"	Good	18"	Good	No		4.00	7.75		8.42	0.67	3.92
7/10/12	Turner E			N44°48.696W068°46.467	Norfolk @ McKinley	Square	Good	Square 6"	Good	0	1	Good	Concrete	Good	Concrete	Good	no			8"	Good	Yes		4.00	4.42	5.25	6.00	1.58	0.35
7/10/12	Turner E			N44°48.753W068°46.289	French @ Congress 110 Broadway Side	Round	Good	Round 6"	Good	0	All	Poor	Brick	Fair	Brick	Fair	no			8"	Good			4.00	3.25	6.00	7.58	4.33	0.73
7/10/12	Turner E			N44°48.753W068°46.295	French @ Congress Center St Side	Round	Good	Round 6"	Good	0	All	Good	Brick	Good	Brick	Good	no			8"	Good	Yes	Brick	4.00	4.75	7.92	8.33	3.58	0.19
7/10/12	Turner E			N44°48.707W068°46.365	McKinley in Town Side @ Center	Square	Good	Square 6"	Good	0	1	Good	Concrete	Good	Concrete	Good	yes	10"	Good	12"	Good	Yes		4.00	5.17	6.25	7.00	1.83	0.35
7/11/12	Turner E			N44°49.542W068°46.902	Husson @ Broadway	Square	Good	Square 3"	Good	0	0		Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	2.67	3.50	4.58	1.91	0.50
7/11/12	Turner E			N44°49.522W068°46.965	Husson @ Ross Manor	Round	Good	Round 6"	Good	0	4	Good	Concrete	Good	Concrete	Good	yes	15"8"	Good	8"	Good	No		4.00	3.33	4.25	5.33	2.00	0.50
7/11/12	Turner E			N44°49.517W068°47.002	Husson @ Ross Manor across from 323	Round	Good	Round 5"	Good	0	1	Good	Concrete	Good	Concrete	Good	Yes	8"	Good	8"	Good	No		4.00	2.67	3.83	5.08	2.41	0.58
7/11/12	Turner E			N44°49.507W068°47.049	Husson @ Ross Manor across from 307	Round	Good	Round 6"	Good	0	3	Good	Concrete	Good	Concrete	Good	yes	8"6"	Good	8"	Good	No			7.00	8.50	8.92	1.92	0.00
7/11/12	Turner E			N44°49.514W068°46.978	Husson Ave Next to 339	Round	Good	Round 6"	Good	0	3	Good	Concrete	Good	Concrete	Good	yes	8"	Good	8"	Good	No		4.00	4.33	6.00	6.92	2.59	0.43
7/11/12	Turner E			N44°48.708W068°46.366	McKinley @ Center St. Joes Side	Square	Good	Square 6"	Good	0	1	Good	Concrete	Good	Concrete	Good	no			10"	Good	No		4.00	3.83	4.83	6.08	2.25	0.58
7/11/12	Turner E			N44°50.174W068°47.484	Burleigh Rd Tom T	Square	Good	Square 6"	Good	0	1	Good	Concrete	Good	Concrete	Good	yes	15"	Good	15"	Good	No			4.33	4.33	6.00	1.67	0.00
7/11/12	Turner E			N44°50.276W068°47.319	Burleigh Rd @ Woodland	Square	Good	Square 8"	Good	0	2	Good	Concrete	Good	Concrete	Good	no			6"	Good	No		4.00	2.25	3.67	4.75	2.50	0.50
7/11/12	Turner E			N44°50.272W068°47.338	Burleigh Rd 64	Square	Good	Square 8"	Good	0	1	Good	Concrete	Good	Concrete	Good	yes	6"4"	Good	8"	Good	No		4.00	1.67	1.67	4.42	2.75	1.28
7/11/12	Turner E			N44°50.250W068°47.377	Burleigh Rd 56	Square	Good	Square 6"	Good	0	0		Concrete	Good	Concrete	Good	yes	6"	Good	8"	Good	No		4.00	1.42	3.83	7.00	5.58	1.47
7/11/12	Turner E			N44°50.183W068°47.493	Burleigh Rd Tractor Supply	Square	Good	Square 8"	Good	0	1		Concrete		Concrete		yes	15"		2"		No		4.00	4.58	5.75	7.58	3.00	0.85
7/11/12	Turner E			N44°48.086W068°45.948	Pine @ Walgreen	Square	Good	Square 8"	Good	0	1	Fair	Concrete	Good	Concrete	Good	yes	6"	Good	12"	Good	No		4.00	4.92	6.42	7.58	2.66	0.54
7/11/12	Turner E			N44°48.086W068°45.941	Pine Nasen Park	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	yes	6"	Good	8"	Good	No		4.00	5.42	6.42	7.25	1.83	0.39
7/12/12	Turner E			N44°49.093W068°45.010	388 Mt Hope	Round	Good	Round 5"	Good	0	1	Good	Barrel	Good	Concrete	Good	yes	15"	Good	15"22"	Good	No		4.00	4.67		4.67	0.00	2.17
7/12/12	Turner E			N44°49.093W068°45.012	389 Mt Hope	Round	Good	Round 5"	Good	0	0		Barrel	Good	Concrete	Good	yes	6"15"	Good	24"	Good	No		4.00	4.08		4.08	0.00	1.90
7/12/12	Turner E			N44°49.082W068°45.038	370 Mt Hope	Round				2	0		Concrete		Concrete		yes	8"6"		8"		Yes		3.00	2.25	3.42		-2.25	-0.89
7/12/12	Turner E			N44°49.058W068°45.086	344 Mt Hope	Round	Good			2	1	Good	Concrete	Good	Concrete	Good	yes	6"2"	Good	6"2"	Good	No		4.00	5.83	6.50	7.58	1.75	0.50
7/12/12	Turner E			N44°49.668W068°47.016	814 Broadway	Square	Good	Square 8"	Good	0	0		Barrel	Good	Concrete	Good	no			8"	Good	Yes		4.00	3.42	6.50	7.50	4.08	0.47
7/12/12	Turner E			N44°49.647W068°46.997	Broadway @ Grandview	Square	Good	Square 8"	Good	0	0		Bar/Con	Good	Bar/Con	Good	no			12"	Good	No		4.00	5.08	5.17	7.33	2.25	1.00
7/12/12	Turner E			N44°49.593W068°46.945	782 Broadway	Square	Good	Square 8"	Good	0	1	Good	Concrete	Good	Concrete	Good	yes	12"	Good	12"	Good	No		4.00	6.42	6.92	8.33	1.91	0.66
7/12/12	Turner E			N44°49.498W068°43.170	Mt Hope @ Flaggs State St	Square	Good	Square 4"	Good	0	1	Poor	Bar/Con	Poor	Concrete		yes	14"	Good	14"	Good	No		4.00	4.17	4.92	6.75	2.58	0.85
7/12/12	Turner E			N44°49.505W068°43.211	Mt Hope @ State St	Square	Good			0	0		Bar/Con	Good	Concrete	Good	yes	14"	Good	14"	Good	No		4.00	3.75	3.75	6.00	2.25	1.05
7/12/12	Turner E			N44°49.043W068°46.453	Center @ Poplar	Round	Good	Round 6"	Good	0	1	Good	Barrel	Good	Concrete	Good	yes	6"	Good	15"	Good	No		4.00	4.17	4.67	5.75	1.58	0.50
7/12/12	Turner E			N44°49.412W068°46.780	Broadway @ Dairy Queen	Square	Good	Square 8"	Good	0	2	Good	Concrete	Good	Concrete	Good	no			15"	Good	No		4.00	7.08	7.08	9.08	2.00	0.93
7/12/12	Turner E			N44°49.332W068°46.701	Broadway The Furniture Store	Square		Square 8"		0	0		Concrete		Concrete													0.00	0.00
7/12/12	Turner E			N44°49.296W068°46.667	Broadway Entrance to Tim Horton					0	0		Concrete	Good	Concrete	Good	no			14"	Good	No			5.33	5.33	5.33	0.00	0.00
7/12/12	Turner E			N44°49.226W068°46.602	Broadway Across from China Light	Square	Good	Square 8"	Good	0	1	Fair	Concrete	Good	Concrete	Good				18"	Good			4.00	4.08	4.92	6.33	2.25	0.66
7/12/12	Turner E			N44°49.219W068°46.593	546 Broadway	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	no			26"	Good	No		4.00	5.50	5.75	8.00	2.50	1.05
7/12/12	Turner E			N44°49.050W068°46.456	Poplar @ Center	Round	Good	Round 6"	Good	0	0		Bar/Con	Good	Concrete	Good	no			8"	Good	No		4.00	3.08	3.08	4.33	1.25	0.58
7/13/12	Turner E			N44°49.477W068°46.841	Broadway Wallgreens	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	yes	8"	Good	12"	Good	No		2.17	4.50		4.50	0.00	0.62
7/13/12	Turner E			N44°49.385W068°46.753	Broadway Bangor Savings Bank	Square	Good	Square 8"	Good	0	2	Good	Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	7.08	7.08	9.17	2.09	0.97
7/13/12	Turner E			N44°49.283W068°46.656	Broadway Tim Hortons Drive Thru	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	yes	12"	Good	12"	Good	No		4.00	5.08	5.75	7.33	2.25	0.73
7/13/12	Turner E			N44°49.183W068°46.562	Broadway 95 South on Ramp	Square		Square 8"		0	0		Concrete	Good	Concrete	Good	no			15"		No		4.00	5.67	5.75	7.83	2.16	0.97
7/13/12	Turner E			N44°49.145W068°46.524	Broadway 95 North Bridge	Square	Good			0	0		Concrete	Good	Concrete	Good	no			12"	Good	No		2.17	4.50		4.50	0.00	0.62
7/13/12	Turner E			N44°49.113W068°46.491	Broadway Jiffy Print	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	no			12"	Good	No		2.17	4.50		4.50	0.00	0.62
7/13/12	Turner E			N44°49.066W068°46.447	Broadway Island @ Center	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	no			12"	Good	No		2.17	4.50		4.50	0.00	0.62
7/13/12	Turner E			N44°49.057W068°46.440	Broadway @ Center	Square	Good	Square 8"	Good	0	2	Good	Concrete	Good	Concrete	Good	yes	6"	Good	12"	Good	No		4.00	3.83	3.83	5.67	1.84	0.86
7/13/12	Turner E			N44°48.984W068°46.365	Broadway Across from Mary Snow	Square	Good	Square 8"	Good	0	2	Good	Brick	Good	Concrete	Good	no			8"	Good	yes		3.00	3.33	3.50	4.92	1.59	0.37
7/13/12	Turner E			N44°48.909W068°46.304	Broadway St Joes	Square	Good	Square 6"	Good	0	0		Concrete	Good	Concrete	Good	yes	12"	Good	12"	Good	No		4.00	5.25	6.75	7.33	2.08	0.27
7/13/12	Turner E			N44°48.834W068°46.261	340 Broadway	Square	Good	Square 8"	Good	0	3	Fair	Concrete	Good	Concrete	Good	no			8"	Good	No		4.00	3.17	3.17	5.58	2.41	1.12
7/13/12	Turner E			N44°48.762W068°46.225	Broadway @ Congress	Square	Good	Square 8"	Good	0	0		Bar/Con	Good	Concrete	Good	no			8"	Good	No		4.00	4.58	4.58		-4.58	-2.13
7/13/12	Turner E			N44°48.657W068°46.196	Broadway @ Perk	Square	Good	Square 4"	Good	0	1	Good	Barrel	Good	Concrete	Good	yes	6"	Good	8"	Good	No		4.00	4.58		4.58	0.00	2.13
7/13/12	Turner E			N44°48.589W068°46.175	Broadway @ S Park	Square	Good	Square 8"	Good	0	All	Fair	Brick	Fair	Concrete	Good	no			8"	Good	Yes		4.00	3.42	3.42	7.33	3.91	1.82
7/13/12	Turner E			N44°48.496W068°46.149	Broadway @ Garland	Square	Good	Square 6"	Good	0	1	Good	Concrete	Good	Concrete	Good	no			12"	Good	No		4.00	3.17	3.17	5.08	1.91	0.89
7/13/12	Turner E			N44°48.357W068°46.107	Broadway @ Somerset	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	no			8"	Good	yes		4.00	5.33	5.83	7.25	1.92	0.66
7/13/12	Turner E			N44°48.282W068°46.087	Broadway @ Penobscot	Round	Good	Round 6"	Good	0	All	Fair	Brick	Fair	Concrete	Good	no			10"	Good	Yes		4.00	6.25	9.75	10.50	4.25	0.35
7/13/12	Turner E			N44°48.189W068°46.062	Broadway @ State	Square	Good	Square 8"	Good	0	0		Concrete	Good	Concrete	Good	no			18"	Good	no		4.00	6.33	6.33	8.42	2.09	0.97
7/13/12	Turner E			N44°48.124W068°46.037	Broadway @ York	Square	Good	Square 8"	Good	0	2	Good	Concrete	Good	Concrete	Good	yes	8"	Good	18"	Good	No		4.00	6.83	8.08	8.92	2.09	0.39

7/13/12	Turner E	N44°48.071W068°46.007	Broadway @ Hancock	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	no			8"	Good	No	4.00	5.33	5.33	6.25	0.92	0.43
7/13/12	Turner E	N44°48.029W068°45.985	Oak @ Varneys	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	6"	Good	12"	Good	No	4.00	5.92	6.33	7.67	1.75	0.62
7/17/12	Turner E	N44°47.987W068°46.030	Washington @ TD Bank	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	18"12"12"	Good	24"	Good	No	4.00	6.50	7.67	8.17	1.67	0.23
7/17/12	Turner E	N44°47.981W068°46.057	Washington @ Exchange	Square	Good	Square 8"	Good	0	0 Good	Concrete	Good	Concrete	Good	yes	12"24"	Good	24"	Good	No	4.00	5.75	6.33	7.75	2.00	0.66
7/17/12	Turner E	N44°48.004W068°45.960	Oak @ Washington	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	22"	Good	22"	Good	No	4.00	6.83	6.83	8.25	1.42	0.66
7/17/12	Turner E	N44°48.001W068°45.953	Oak @ Washington Inbound	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	22"	Good	22"	Good	No	4.00	6.25	6.25	7.83	1.58	0.73
7/17/12	Turner E	N44°48.016W68°46.960	Oak @ Unemployment	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	15"15"	Good	22"	Good	No	4.00	6.08	6.42	7.83	1.75	0.66
7/17/12	Turner E	N44°48.000W068°45.988	Washington @ Varneys	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	12"22"	Good	18"	Good	No	4.00	7.83	9.58	9.58	1.75	0.00
7/18/12	Turner E	N44°47.970W068°46.090	Washington @ Court House	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	6"15"	Good	15"	Good	No	4.00	6.08	7.42	8.00	1.92	0.27
7/18/12	Turner E	N44°47.961W068°46.116	Washington @ KD	Square	Good	Square 8"	Good	0	0 Good	Concrete	Good	Concrete	Good	no			12"	Good	No	4.00	4.58	5.67		-4.58	-2.64
7/18/12	Turner E	N44°50.729W068°47.753	103 Lasalle	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	8"14"	Good	14"	Good	No	4.00	3.75	4.25	5.58	1.83	0.62
7/20/12	Turner E	N44°50.324W068°47.257	100 Burleigh Rd	Round				0	0					yes	6"		6"		No					0.00	0.00
7/20/12	Turner E	N44°49.102W068°46.137	498 Essex	Round	Good	Round 6"	Good	0	5 Good	Concrete	Good	Concrete	Good	No			6"	Good	Yes	4.00	4.00	6.17	7.33	3.33	0.54
7/20/12	Turner E	N44°49.146W068°46.139	524 Essex	Round	Good	Round 6"	Good	0	4 Good	Concrete	Good	Concrete	Good	no			6"	Good	Yes	4.00	4.25	4.75	6.75	2.50	0.93
7/20/12	Turner E	N44°49.206W068°46.142	Essex St 95 Bridge	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			15"	Good	No	4.00	5.17	6.25	7.08	1.91	0.39
7/20/12	Turner E	N44°48.902W068°46.124	Essex St Navy Reserve	Round	Good	Round 6"	Good	0	4 Good	Concrete	Good	Concrete	Good	no			6"	Good	No	4.00	5.50	5.50	6.92	1.42	0.66
7/20/12	Turner E	N44°48.863W068°46.100	379 Essex	Round	Good	Round 6"	Good	0	5 Good	Barrel	Good	Concrete	Good	no			8"	Good	Yes	4.00	4.42	5.00	6.83	2.41	0.85
7/20/12	Turner E	N44°48.874W068°46.103	385 Essex	Round	Good	Round 6"	Good	0 All	Fair	Concrete	Good	Concrete	Good	no			8"	Good	Yes	4.00	6.42	7.58	8.42	2.00	0.39
7/20/12	Turner E	N44°48.906W068°46.113	401 Essex	Round	Good	Round 6"	Good	0 All	Good			Concrete	Good	no			8"	Good	No	4.00	5.25	5.25	8.25	3.00	1.40
7/24/12	Turner E	N44°48.144W068°46.141	State @ Exchange	Square	Good	Square 6"	Good	0	2 Good	Brick	Good	Concrete	Good	no			15"	Good	Yes	4.00	6.33	7.33	9.25	2.92	0.89
7/24/12	Turner E	N44°48.189W068°46.030	State @ Broadway	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	yes	6"	Good	8"	Good	No	4.00	4.33	4.33	6.58	2.25	1.05
7/24/12	Turner E	N44°48.206W068°45.987	State @ Pine	Square	Good	Square 4"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	No	4.00	5.25	5.92	7.67	2.42	0.81
7/24/12	Turner E	N44°48.231W068°45.928	State @ Essex	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	No	4.00	4.42	5.25	6.75	2.33	0.70
7/24/12	Turner E	N44°48.160W068°46.094	State @ French	Square	Good	Square 6"	Good	0	3 Poor	Concrete	Good	Concrete	Good	no			10"	Good	No	4.00	4.42	4.42	6.92	2.50	1.16
7/24/12	Turner E	N44°48.254W068°45.869	State @ Adams	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	no			10"	Good	No	4.00	5.08	6.50	7.00	1.92	0.23
7/24/12	Turner E	N44°48.331W068°45.656	State @ Newbury	Square	Good	Square 8"	Good	0 All	Good	Brick	Good	Concrete	Good	no			10"	Good	Yes	4.00	6.25	9.58	10.67	4.42	0.51
7/24/12	Turner E	N44°48.072W068°45.996	Broadway @ Hancock	Square	Good	Square 8"	Good	2	0	Concrete	Good	Concrete	Good	no			12"	Good	no	4.00	6.00	6.00	8.17	2.17	1.01
7/26/12	Turner E	N44°48.127W068°46.018	Broadway @ York	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	yes	8"6"	Good	12"	Good	no	4.00	5.58	5.58	7.75	2.17	1.01
7/26/12	Turner E	N44°48.314W068°45.700	209 State	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	no			12"	Good	No	4.00	5.58	6.76	7.58	2.00	0.39
7/26/12	Turner E	N44°48.353W068°45.606	247 State	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	Yes	4.00	6.17	7.17	8.25	2.08	0.50
7/26/12	Turner E	N44°48.364W068°45.585	263 State	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	Yes	4.00	5.58	6.25	7.67	2.09	0.66
7/26/12	Turner E	N44°48.371W068°45.555	267 State	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	Yes	4.00	6.17	6.92	7.92	1.75	0.47
7/26/12	Turner E	N44°48.382W068°45.504	289 State	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	4.00	4.75	5.42	6.83	2.08	0.66
7/26/12	Turner E	N44°48.400W068°45.469	299 State	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	4.00	5.00	6.17	6.92	1.92	0.35
7/26/12	Turner E	N44°48.447W068°45.344	State @ Spruce	Square	Good	Square 6"	Good	0 All	Poor	Brick	Poor	Concrete	Good	no			8"	Good	yes	4.00	3.17	5.50	7.92	4.75	1.13
7/26/12	Turner E	N44°48.481W068°45.264	417 State	Square	Good	Square 8"	Good	0	3 Fair	Concrete	Good	Concrete	Good	yes	12"	Good	8"	Good	no	4.00	5.00	5.67	7.00	2.00	0.62
7/26/12	Turner E	N44°48.491W068°45.223	State entrance to EMMC	Square	Good	Square 4"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	6"	Good	6"	Good	No	4.00	3.67	3.67	6.58	2.91	1.35
7/26/12	Turner E	N44°48.565W068°45.049	State EMMC 02 Tanks on Road	Square	Good	Square 4"	Good	0	7 Good/fair	Concrete	Good	Concrete	Good	no			12"	Good	no		5.75	6.33	6.33	0.58	0.00
7/26/12	Turner E	N44°48.565W068°45.051	State EMMC 02 Tanks on Grass	Square	Good	Square 8"	Good	0	2 Good	Cobble	Good	Concrete	Good	yes	12"	Good	12"	Good	no	4.00	5.83	5.83	7.67	1.84	0.86
7/26/12	Turner E	N44°48.596W068°44.976	State across from summit	Square	Good	Square 8"	Good	0	1 Fair	Cobble	Good	Concrete	Good	yes	12"	Good	12"	Good	no	4.00	6.08	6.75	8.00	1.92	0.58
7/26/12	Turner E	N44°48.610W068°44.939	State @ Riverside Inn	Square	Good	Square 8"	Good	0	1 Good	Cobble	Good	Concrete	Good	yes	12"	Good	12"	Good	no	4.00	6.58	7.67	7.92	1.34	0.12
7/26/12	Turner E	N44°48.622W068°44.903	State EMMC lower parking lot	Square	Good	Square 8"	Good	0	1 Good	Cobble	Good	Concrete	Good	yes	14"12"	Good	12"	Good	no	4.00	5.75	6.67	7.50	1.75	0.39
7/26/12	Turner E	N44°49.249W068°43.415	State Mt Hope Cemetary	Curbing	Good			0	0	Concrete	Good	Concrete	Good	no			15"	Good						0.00	0.00
7/26/12	Turner E	N44°49.234W068°43.450	State Mt Hope Cemetary	Square	Good			0	0	Concrete	Good	Concrete	Good	yes	15"	Good	15"	Good	No	4.00	2.33	2.33	4.58	2.25	1.05
7/26/12	Turner E	N44°49.207W068°43.542	State Mt Hope Cemetary	Square	Good			0	0	Concrete	Good	Concrete	Good	no			24"	Good	no	4.00	3.58	4.58	5.50	1.92	0.43
7/26/12	Turner E	N44°48.972W068°44.022	State before 900	Square	Good	Square 8"	Good	0	2 Poor	Brick	Good	Concrete	Good	yes	15"	Good	15"	Good	no	4.00	6.75	7.25	8.67	1.92	0.66
7/31/12	Turner E	N44°48.193W068°46.052	Broadway @ State left turn	Square	Good	Square 8"	Good	0	0	Brick	Good	Concrete	Good	no			12"	Good	yes	4.00	6.50	7.25	9.33	2.83	0.97
7/31/12	Turner E	N44°48.148W068°46.150	State @ Harlow	Square	Good	Square 6"	Good	0	0	Brick	Good	Concrete	Good	yes	9"	Good	12"	Good	yes	4.00	7.17	8.08	9.75	2.58	0.78
7/31/12	Turner E	N44°48.953W068°44.094	State Pole # 25-1/2	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	no			14"	Good	no	2.00	3.33	3.33	3.33	0.00	0.00
7/31/12	Turner E	N44°48.944W068°44.142	State @ Riverview	Square	Good			0	0	Concrete	Good	Concrete	Good	no			14"	Good	no	2.00	3.33	3.33	3.33	0.00	0.00
7/31/12	Turner E	N44°48.904W068°44.245	State U Wash It	Square	Good	Square 4"	Good	0	0	Concrete	Good	Concrete	Good	yes	4"	Good	15"	Good	no	2.00	4.17	4.17	4.17	0.00	0.00
7/31/12	Turner E	N44°48.896W068°44.256	State U Wash It	Square	Good	Square 4"	Good	0	0	Concrete	Good	Concrete	Good	no			15"	Good	No	4.00	2.25	4.83	4.83	2.58	0.00
7/31/12	Turner E	N44°48.893W068°44.261	State U Wash It	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	yes	24"	Good	24"	Good	no	4.00	6.25	7.17	7.17	0.92	0.00
7/31/12	Turner E	N44°48.856W068°44.310	State @ Hogan	Round	Good	Round 6"	Good	0	2 Good	Concrete	Good	Concrete	Good	yes	4"15"	Good	15"	Good	No	4.00	4.17	5.58	6.58	2.41	0.47
7/31/12	Turner E	N44°48.820W068°44.336	State St on Corner	Square		Square 8"		0	0	Concrete	Good	Concrete	Good	no					no		3.50	2.25	5.33	1.83	0.00
7/31/12	Turner E	N44°48.725W068°44.535	State Ronald McDonald House	Square	Good	Square 8"	Good	0 All	Good	Brick	Good	Concrete	Good	yes	12"	Good	15"	Good	No	4.00	4.92	5.33	6.58	1.66	0.58
7/31/12	Turner E	N44°48.709W068°44.598	State Water District	Round		Round 9"		0	2	Concrete		Concrete		yes	6"		8"		No	4.00	6.50	8.83	9.08	2.58	0.12
7/31/12	Turner E	N44°48.681W068°44.708	State Cascade Park	Square	Good	Square 4"	Good	0	0	Concrete	Good	Concrete	Good	no			15"	Good	No	2.00	4.83	4.83	4.83	0.00	0.00
7/31/12	Turner E	N44°48.651W068°44.849	State St after Cascade Park	Square	Good	Square 8"	Good	0	0	Cobble	Good	Concrete	Good	yes	15"	Good	24"	Good	no	4.00	5.42	6.08	7.17	1.75	0.51
7/31/12	Turner E	N44°48.631W068°44.902	State St before Summit	Square	Good	Square 8"	Good	0	2 Good	Cobble	Good	Concrete	Good	yes	15"	Good	15"	Good	No		6.17	7.00	7.42	1.25	0.00
7/31/12	Turner E	N44°48.605W068°44.972	State @ Summit	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	no	4.00	2.83	3.00	4.25	1.42	0.58
7/31/12	Turner E	N44°78.583W068°45.031	State @ Bellevue Ave	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	No			8"	Good	Yes	4.00	4.50	4.67	5.83	1.33	0.54
7/31/12	Turner E	N44°48.484W068°45.271	State before Otis	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	yes	24"	Good	24"	Good	No	4.00	16.75	16.75	16.75	0.00	0.00
7/31/12	Turner E	N44°48.467W068°45.325	State @ Otis	Square	Good	Square 3"	Good	0 All	Poor	Brick	Good	Concrete	Good	yes	6"	Good	12"	Good	No	4.00	5.50	5.50	5.92	0.42	0.20
7/31/12	Turner E	N44°48.432W068°45.409	State @ 326	Round	Good	Round 6"	Good	1	2 Good	Concrete	Good	Concrete	Good	yes	6"12"	Good	12"	Good	No	4.00	9.67	9.67	9.83	0.16	0.07
7/31/12	Turner E	N44°48.387W068°45.519	State @ Birch	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	no			8"	Good	Yes	4.00	5.08	6.00	7.00	1.92	0.47
7/31/12	Turner E	N44°48.959W068°44.296	Hogan Rd Hill	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	yes	15"	Good	20"	Good	No	4.00	6.25	7.33	8.17	1.92	0.39
7/31/12	Turner E	N44°48.926W068°44.289	Hogan Rd Hill	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	20"	Good	24"	Good	No	4.00	5.83	6.42	8.08	2.25	0.77
7/31/12	Turner E	N44°48.890W068°44.293	Hogan Rd Hill @ State	Round	Good	Round 6"	Good	0	7 Good	Concrete	Good	Concrete	Good	yes	24"	Good	24"	Good	No	4.00	6.67	7.17	8.50	1.83	0.62
8/1/12	Turner E	N44°48.868W068°44.287	State St on Island @ Hogan	Round	Good	Round 8"	Good	0	0	Bar/Con	Good	Concrete	Good	yes	24"15"	Good	24"		no	4.00	6.50	7.83	8.75	2.25	0.43
8/1/12	Turner E	N44°48.879W068°44.280	State @ Island Hogan Rd Hill	Square	Good	Square 8"	Good	0	4 Good	Bar/Con	Good	Concrete	Good	yes	24"18"	Good	24"	Good	No	4.00	6.33	7.17	7.42	1.09	0.12
8/1/12	Turner E	N44°48.365W068°45.594	State @ Maple	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	4.00	4.58	5.33	6.58	2.00	0.58

8/1/12	Turner	E	N44°48.359W068°45.610	State @ Maple	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	no			8"	Good	Yes	4.00	5.08	5.67	6.92	1.84	0.58
8/1/12	Turner	E	N44°48.339W068°45.665	State @ Parkview	Square	Good	Square 8"	Good	0	0	Concrete	Good	Concrete	Good	yes	10"	Good	12"	Good	No	4.00	3.17	4.17	5.33	2.16	0.54
8/1/12	Turner	E	N44°48.325W068°45.708	State @ Palm	Square	Good	Square 6"	Good	0	0	Brick	Fair	Concrete	Good	no			10"	Good		4.00	5.00	6.67	7.83	2.83	0.54
8/1/12	Turner	E	N44°48.692W068°44.666	State @ Cascade Park	Round	Good		Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	no	4.00	2.83	3.25	4.33	1.50	0.50
8/1/12	Turner	E	N44°48.258W068°45.883	State @ Grove	Square	Good	Square 3"	Good	0 All	Fair	Brick	Good	Concrete	Good	no			8"	Good	yes	4.00	7.08	8.00	10.58	3.50	1.20
9/28/12	Turner	E	N44°48.855W068°45.566	Mt Hope @ Fern	Round	Good	Round 6"	Good	0	6 Good	Concrete	Good	Concrete	Good	no			8"	Good	no	4.00	4.00	7.00	10.00	6.00	1.40
9/28/12	Turner	E	N44°48.297W068°45.774	State @ Forest	Square	Good	Square 3"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	yes	4.00	3.67	4.08	6.25	2.58	1.01
9/28/12	Turner	E	N44°48.274W068°45.839	156 State	Square	Good	Square 6"	Good	0 All	Good	Brick	Good	Concrete	Good	no			8"	Good	yes	4.00	3.67	6.67	8.25	4.58	0.73
10/2/12		E	N44°47.979W068°46.069	Exchange @ Washington	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	no			12"	Good	no	4.00	4.00	4.92	5.42	1.42	0.23
10/2/12		E	N44°49.072W068°45.404	Juniper @ Howard	Round	Good	Round 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	no			8"	Good	no	4.00	4.42	5.83	6.83	2.41	0.47
10/2/12		E	N44°48.325W068°45.542	23 Merrimack	Square		Square 8"		0	0	Concrete		Concrete		no			8"		yes	4.00	5.92	6.50	8.00	2.08	0.70
10/17/12	Turner	E	N44°48.067W068°46.035	255 Essex	Round	Good	Round 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	4.00	5.17	6.25	7.83	2.66	0.73
10/17/12	Turner	E	N44°49.478W068°47.072	Husson Ave (across from 302)	Round	Good	Round 6"	Good	0	4 Good	Concrete	Good	Concrete	Good	no			8"	Good	No	4.00	4.42	4.92	6.75	2.33	0.85
12/5/12	Turner	E	N44°49.632W068°48.262	30 Griffin	Round	Good	Round 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	4' 12"	Good	12"	Good	No	4.00	3.83	3.83	5.75	1.92	0.89
12/5/12	Turner	E	N44°49.606W068°48.316	49 Griffin	Round	Good	Round 4"	Good	0	0	Concrete	Good	Concrete	Good	yes	4' 12"	Good	12"	Good	no		5.33	5.33	7.17	8.00	0.00
12/5/12	Turner	E	N44°49.580W068°48.362	Griffin Rd Bulls Eye Bridge	Square		Square 8"		0	3	Concrete		Concrete		no			15"		no	4.00	5.50	6.00	7.17	5.00	0.54
12/5/12	Turner	E	N44°48.675W068°46.064	292 Essex	Round	Good	Round 6"	Good	0	2.5 Good	Concrete	Good	Concrete	Good	no			12"	Good	yes	4.00	6.33	8.83	10.25	9.00	0.66
12/5/12	Turner	E	N44°48.739W068°46.081	324 Essex	Round	Good	Round 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	no			12"	Good	yes	4.00	3.42	5.67	5.67	9.00	0.00
12/5/12	Turner	E	N44°48.778W068°46.085	336 Essex	Round	Good	Round 6"	Good	0	6 Good	Concrete	Good	Concrete	Good	no			12"	Good	Yes	4.00	7.00	9.25	9.25	10.00	0.00
12/18/12	Turner	E	N44°50.577W068°47.670	23 Lasalle	Round	Good	Round 6"	Good	0	2 Fair	Concrete	Good	Concrete	Good	yes	8"6"	Good	12"	Good	no	4.00	5.25	5.75	7.00	5.00	0.58
12/18/12	Turner	E	N44°50.593W068°47.683	Lasalle @ Castle Hill	Square	Good	Square 8"	Good	0	1 Poor	Concrete	Good	Concrete	Good	yes	12"	Good	18"	Good	no	4.00	4.58	4.58		7.50	-2.13
12/18/12	Turner	E	N44°50.603W068°47.689	Lasalle @ Castle Hill	Square	Good	Square 8"	Good	0	3 Good	Bar/Con	Fair	Bar/Con	Good	yes	18" 8"	Good	18"	Good	No	4.00	5.50	5.83	7.33	7.00	0.70
12/18/12	Turner	E		Lasalle @ Hill View	Square	Good	Square 3"	Good	0	0	Concrete	Good	Concrete	Good	yes	24"	Good	24"	Good	no	4.00	4.00	4.33	4.33	7.00	0.00
12/18/12	Turner	E	N44°50.681W068°47.754	83 Lasalle	Square	Good	Square 6"	Good	0	4	Concrete	Good	Concrete	Good	yes	6"14"	Good	24"	Good	No	4.00	3.92	4.25	6.00	2.08	0.81
12/18/12	Turner	E	N44°50.765W068°47.760	Across from 126 Lasalle	Square	Good	Square 6"	Good	0	2 Good	Concrete	Good	Concrete	Good	yes	18"	Good	18"	Good	no	4.00	4.08	6.08	6.08	2.00	0.00
12/18/12	Turner	E	N44°50.788W068°47.750	133 Lasalle	Square	Good	Square 4"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	18"	Good	18"	Good	No	4.00	3.58	3.67	5.00	1.42	0.62
1/15/13	Turner	E	N44°50.803W068°47.750	133 Lasalle	Square	Good	Square 6"	Good	0	0 good	Concrete	Good	Concrete	Good	yes	17" 14"	Good	17"	Good	no	4.00	3.67	5.75	5.75	2.08	0.00
1/15/13	Turner	E	N44°50.831W068°47.736	next to hydrant 1026	Square	Good	Square 6"	Good	0	2 good	Concrete	Good	Concrete	Good	yes	17"	Good	17"	Good	no	4.00	3.92	4.58	5.67	1.75	0.51
1/15/13	Turner	E	N44°50.874W068°47.732	last basin @ turn around lasalle	Square	Good	Square 6"	Good	0	0.50 good	Concrete	Good	Concrete	Good	yes	8"	Good	17"	Good	no	4.00	3.67	4.92	5.42	1.75	0.23
1/15/13	Turner	E	N44°50.832W068°47.748	154 Lasalle	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	no			17"	Good	no	4.00	4.00	5.50	5.50	1.50	0.00
3/7/13	Turner	E	N44°48.764W068°46.074	333 Essex	Round	Good	Round 5"	Good	0	3 Good	Concrete	Good	Concrete	Good	yes	12"	Good	12"	Good	no	4.00	6.92	5.92	7.50	1.58	0.73
3/7/13	Turner	E	N44°48.685W068°46.054	295 Essex	Round	Good	Round 6"	Good	0	4 Good	Concrete	Good	Concrete	Good	no			12"	Good	yes	4.00	6.67	8.58	8.67	2.00	0.04
3/7/13	Turner	E	N44°48.929W068°45.878	236 Palm	Round				1	2	Concrete		Concrete		yes	5"		4"		Yes	4.00	3.67	6.33	8.33	4.66	0.93
3/7/13	Turner	E	N44°50.798W068°47.759	136 LaSalle	Square		Square 6"				Concrete		Concrete		yes	6' 15"		6"		no	4.00	3.83	4.17	5.17	1.34	0.47
3/7/13	Turner	E	N44°50.765W068°47.758	126 LaSalle	Square	Good	Square 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	6' 15"	Good	18"	Good	No	4.00	4.83	5.17	6.75	1.92	0.73
3/8/13	Turner	E	N44°50.693W068°47.663	37 Hillview	Square		Square 4"		0	0	Concrete		Concrete		yes	15"		15"		No	4.00	8.08	9.42	10.58	2.50	0.54
3/8/13	Turner	E	N44°48.603W068°46.046	258 Essex	Round		Round 4"		0	6	Concrete		Concrete		no			12"		yes	4.00	7.33	9.00	9.58	2.25	0.27
3/8/13	Turner	E	N44°50.723W068°47.757	106 LaSalle	Square		Square 8"		0	0	Concrete		Concrete		yes	6"		15"		No	4.00	3.92	4.25	5.42	1.50	0.54
3/8/13	Turner	E	N44°50.693W068°47.760	86 LaSalle	Square		Square 6"		0	0	Concrete		Concrete		yes	6"		15"		No	4.00	4.92	5.17	5.50	0.58	0.15
3/8/13	Turner	E	N44°50.644W068°47.739	66 LaSalle	Square		Square 6"		0	0	Concrete		Concrete		yes	6' 15"		15"		no	4.00	5.25	6.50	7.25	2.00	0.35
3/8/13	Turner	E	N44°50.661W068°47.695	Across from 8 Hillview	Square		Square 6"		0	1	Concrete		Concrete		yes	6"		15"		No	4.00	5.50	5.58	7.58	2.08	0.93
3/11/13	Turner	E	N44°50.766W068°47.660	71 Hillview	Square	Good	Square 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	6' 15"	Good	15"	Good	No	4.00	4.08	4.50	6.08	2.00	0.73
3/11/13	Turner	E	N44°50.179W068°47.639	53 Hillview	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	15"	Good	15"	Good	No	4.00	4.42	4.67		-4.42	-2.17
3/11/13	Turner	E	N44°48.460W068°45.478	28 Fern	Square	Good	Square 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	4.00	4.83	5.33	6.83	2.00	0.70
3/12/13	Turner	E	N44°50.729W068°47.669	50 Hillview	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	6"	Good	15"	Good	no	4.00	3.92	4.08	5.75	1.83	0.78
3/12/13	Turner	E	N44°50.684W068°47.677	24 Hillview	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	6' 15"	Good	6" 15"	Good	no	4.00	8.08	8.33	10.08	2.00	0.81
3/12/13	Turner	E	N44°50.762W068°47.666	70 Hillview	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	6"	Good	15"	Good	no	4.00	3.83	5.50	5.75	1.92	0.12
3/12/13	Turner	E	N44°50.802W068°47.672	88 Hillview	Square	Good	Square 6"	Good	0	0	Concrete	Good	Concrete	Good	no			15"	Good	no	4.00	5.00	5.58	6.92	1.92	0.62
3/14/13	Turner	E	N44°50.566W068°47.484	40 Fenton Way	Square	Good	Square 8"	Good	0	3 Good	Concrete	Good	Concrete	Good	yes	4' 8	Good	12"	Good	no	4.00	4.83	5.25	7.25	2.42	0.93
3/14/13	Turner	E	N44°50.530W068°47.538	25 Fenton Way	Round		Round 2"		0	0	Concrete		Concrete		no			10"		no	4.00	3.92	5.58	6.17	2.25	0.27
3/14/13	Turner	E	N44°50.555W068°47.586	Fenton Way @ Judson Blvd	Square		Square 6"		0	1	Barrel		Concrete		yes	8' 10"		10"		no	4.00	5.83		5.83	0.00	2.71
3/14/13	Turner	E	N44°50.511W068°47.661	45 Judson Blvd	Round	Good	Round 6"	Good	0	5 good	Barrel	Good	Concrete	Good	no			8"	Good	no	4.00	5.25		5.25	0.00	2.44
3/14/13	Turner	E	N44°50.489W068°47.688	37 Judson Blvd	Round	Good	Round 6"	Good	0	2 Good	Barrel	Good	Concrete	Good	yes	8"	good	8"	Good	no	4.00	5.17		5.17	0.00	2.41
3/14/13	Turner	E	N44°50.451W068°47.729	19 Judson Blvd	Round	Good	Round 6"	Good	0	3 Good	Barrel	Good	Concrete	Good	no			6"	Good	no	4.00	4.75		4.75	0.00	2.21
3/14/13	Turner	E	N44°50.563W068°47.475	49 Fenton Way	Square	Good	square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	no	4.00	4.25	5.33	6.67	2.42	0.62
3/14/13	Turner	E	N44°50.649W068°47.732	Hillview @ LaSalle	Square	Good	square 4"	Good	0	0	Concrete	Good	Concrete	Good	yes	15"	Good	15"	Good	no	4.00	4.00	4.42	6.00	2.00	0.73
3/14/13	Turner	E	N44°50.665W068°47.700	8 Hillview	Square	Good	square 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	15"	Good	15"	Good	no	4.00	6.58	6.83	8.58	2.00	0.81
3/15/13	Turner	E	N44°50.477W068°47.687	Packard Dr @ Judson	Round	Good	Round 6"	Good	0	0	Barrel	Good	Concrete	Good	no			8"	Good	no	4.00	4.92		4.92	0.00	2.29
3/15/13	Turner	E	N44°50.444W068°47.622	29 Packard Dr	Round	Good	Round 6"	Good	0	3 Good	Barrel	Good	Concrete	Good	no			8"	Good	no	4.00	7.67		7.67	0.00	3.57
3/15/13	Turner	E	N44°50.417W068°47.572	53 Packard Dr	Round	Good	Round 6"	Good	0	6 Good	Barrel	Good	Concrete	Good	no			8"	Good	no	4.00	4.33		4.33	0.00	2.01
3/15/13	Turner	E	N44°50.344W068°47.500	93 Packard Dr	Round	Good	Round 6"	Good	0	5 Good	Barrel	Good	Concrete	Good	yes	18" 8"	Good	18"	Good	No	4.00	7.75		7.75	0.00	3.61
3/15/13	Turner	E	N44°50.348W068°47.443	121 Packard Dr	Round	Good	Round 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	no			10"	Good	No	4.00	4.92		4.92	0.00	2.29
3/15/13	Turner	E	N44°50.382W068°47.385	149 Packard Dr	Round	Good	Round 6"	Good	0	3 good	Concrete	Good	Concrete	Good	no			12"	Good	No	4.00	4.58		4.58	0.00	2.13
3/15/13	Turner	E	N44°50.395W068°47.384	Heather Rd @ Packard Dr	Round	Good	Round 6"	Good	0	3 Good	Barrel	Good	Concrete	Good	yes	6"	Good	12"	Good	No	4.00	5.08		5.08	0.00	2.36
3/18/13	Turner	E	N44°50.457W068°47.442	Heather Rd @ Milton	Round	Good	Round 6"	Good	0	4 Good	Barrel	Good	Concrete	Good	yes	10" 12"	Good	12"	Good	no	4.00	4.00		4.00	0.00	1.86
3/18/13	Turner	E	N44°50.474W068°47.465	Heather Rd @ Milton	Round	Good	Round 6"	Good	0	1 Good	Bar/Con	Good	Concrete	Good	yes	10"	Good	10"	Good	no	4.00	5.83		5.83	0.00	2.71
3/18/13	Turner	E	N44°50.482w068°47.474	34 Heather Rd	Square	Good	Square 6"	Good	0	2 Good	Barrel	Good	Concrete	Good	yes	4" 8"	Good	10"	Good	no	4.00	6.08		6.08	0.00	2.83
3/18/13	Turner	E	N44°50.456W068°47.532	18 Heather Rd	Square	Good	Square 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	10"	Good	10"	Good	no	4.00	6.75		6.75	0.00	3.14
3/18/13	Turner	E	N44°50.438W068°47.568	Heather @ Packard @ stop sign	Round	Good	Round 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	10"	Good	12"	Good	no	4.00	6.33		6.33	0.00	2.94
3/18/13	Turner	E	N44°50.427W068°47.559	Heather @ Packard	Round	Good	Round 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	no			12"	Good	no	4.00	3.50		3.50	0.00	1.63
3/18/13	Turner	E	N44°50.447W068°47.524	9 Heather	Square	Good	square 6"	Good	0	3 Good	Barrel	Good	Concrete	Good	no			10"	Good	no	4.00	5.67		5.67	0.00	2.64
3/18/13	Turner	E	N44°50.385W068°47.398	85 Parkard Dr	Round	Good	round 6"	Good	0	4 Good	Barrel	Good	Concrete	Good	yes	24" 10"	Good	24"	Good	No	4.00	6.42		6.42	0.00	2.99

3/18/13	Turner	E	N44°50.366W068°47.443	Packard across from 121	Square	Good	square 6"	Good	0	4 Good	Barrel	Good	Concrete	Good	yes	2' 10'	Good	2'	Good	no		4.00	7.58		7.58	0.00	3.53
3/18/13	Turner	E	N44°50.343W068°47.478	Packard across from 111	round	Good	round 6"	Good	0	2 Good	Barrel	Good	Concrete	Good	yes	2"	Good	2'	Good	No		4.00	7.00		7.00	0.00	3.26
3/18/13	Turner	E	N44°50.353W068°47.489	92 Packard	round	Good	round 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	no			10"	Good	no		4.00	5.92		5.92	0.00	2.75
3/18/13	Turner	E	N44°50.391W068°47.531	78 Packard	round	Good	round 6"	Good	0	2 Good	Barrel	Good	Concrete	Good	yes	1"	Good	10"	Good	No		4.00	5.75		5.75	0.00	2.67
3/18/13	Turner	E	N44°50.422W068°47.549	Packard across from 45	round	Good	round 6"	Good	0	4 good	Barrel	Good	Concrete	Good	yes	10"	Good	12"	Good	no		4.00	4.83		4.83	0.00	2.25
3/18/13	Turner	E	N44°50.432W068°47.561	Packard across from 45	Square	Good	square 8"	Good	0	2 good	Barrel	Good	Concrete	Good	yes	12"	Good	18"	Good	no		4.00	5.67		5.67	0.00	2.64
3/18/13	Turner	E	N44°50.451W068°47.604	Packard across from 29	Square	Good	square 8"	Good	0	1 good	Barrel	Good	Concrete	Good	yes	18"	Good	24"	Good	no		4.00	8.33		8.33	0.00	3.87
3/18/13	Turner	E	N44°50.457W068°47.608	5 Rose Ct	round	Good	round 6"	Good	0	0	Barrel	Good	Concrete	Good	yes	6"	Good	10"	Good	no		4.00	6.08		6.08	0.00	2.83
3/18/13	Turner	E	N44°50.481W068°47.593	17 Rose Ct	round	Good	round 4"	Good	0	0	Barrel	Good	Concrete	Good	yes	6"	Good	6"	Good	no		4.00	3.00		3.00	0.00	1.40
3/18/13	Turner	E	N44°50.465W068°47.626	6 Rose Ct	round	Good	round 6"	Good	0	4 Good	Barrel	Good	Concrete	Good	yes	4"	Good	10"	Good	no		4.00	5.50		5.50	0.00	2.56
3/18/13	Turner	E	N44°50.466W068°47.628	Packard across from 21	round	Good	round 6"	Good	0	2 Good	Barrel	Good	Concrete	Good	yes	2' 10"	Good	2'	Good	no		4.00	7.33		7.33	0.00	3.41
3/25/13	Turner	E	N44°50.484W068°47.689	Packard Dr @ Judson	round	Good	round 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	12"	Good	3'	Good	no		4.00	6.33		6.33	0.00	2.94
3/25/13	Turner	E	N44°50.599W068°47.554	shady lane @ Judson	Square	Good	square 8"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	3'	Good	3'	Good	No		4.00	6.00		6.00	0.00	2.79
3/25/13	Turner	E	N44°50.597W068°47.530	19 Shady Lane	Square	Good	square 8"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	12" 3'	Good	12" 3'	Good	No		4.00	5.83		5.83	0.00	2.71
3/25/13	Turner	E	N44°50.636W068°47.569	109 Judson	round	Good	round 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	3'	Good	3'	Good	No		4.00	6.08		6.08	0.00	2.83
3/25/13	Turner	E	N44°50.741W068°47.531	Judson @ Peruvian Way Hyd #260	round	Good	round 6"	Good	0	1 good	Bar/Con	Good	Concrete	Good	yes	12"	Good	12"	Good	No		4.00	4.17		4.17	0.00	1.94
3/25/13	Turner	E	N44°50.561W068°47.598	Judson across from Fenton	round	Good	round 6"	Good	0	7 Good	Barrel	Good	Concrete	Good	yes	3' 18"	Good	3' 18"	Good	No		4.00	7.08		7.08	0.00	3.29
3/25/13	Turner	E	N44°50.539W068°47.630	Judson @ LaSalle	Square	Good	square 8"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	3'	Good	3'	Good	no		4.00	7.25		7.25	0.00	3.37
3/25/13	Turner	E	N44°50.519W068°47.672	Judson across from 45	round	Good	round 6"	Good	0	7 Good	Barrel	Good	Concrete	Good	yes	3"	Good	3"	Good	No		4.00	7.33		7.33	0.00	3.41
3/25/13	Turner	E	N44°50.630W068°47.487	Balsam Rd @ Shady Lane	square	Good	square 8"	Good	0	5 Good	Barrel	Good	Concrete	Good	yes	12" 3'	Good	3' 12"	Good	No		4.00	8.83		8.83	0.00	4.11
3/25/13	Turner	E	N44°50.645W068°47.476	8 Shady Lane	square	Good	square 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	yes	12"	Good	12"	Good	No			7.00		7.00	0.00	0.00
3/25/13	Turner	E	N44°50.644W068°47.460	34 Shady Lane	square	Good	square 8"	Good	0	3 Good	Barrel	Good	Concrete	Good	no			12"	Good	no		4.00	5.55		5.58	0.00	2.60
3/25/13	Turner	E	N44°50.720W068°47.856	169 Judson	round	Good	round 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	yes	18"	Good	18"	Good	no		4.00	4.17	5.75	7.08	2.91	0.62
3/26/13	Turner	E	N44°50.463W068°47.269	108 Balsam Rd	round	Good	round 6"	Good	1.5	0	Concrete	Good	Concrete	Good	yes	8"	Good	8"	Good	no		4.00	3.08	5.00	5.33	2.25	0.15
3/25/13	Turner	E	N44°50.512W068°47.320	80 Balsam Rd	round	Good	round 6"	Good	0	4 Good	Concrete	Good	Concrete	Good	yes	8' 12"	Good	18"	Good	no		4.00	4.58	5.17	6.50	1.92	0.62
3/25/13	Turner	E	N44°50.506W068°47.326	79 Balsam Rd	round	Good	round 6"	Good	0	4 Good	Concrete	Good	Concrete	Good	no			12"	Good	no		4.00	4.08	4.92	6.58	2.50	0.77
3/25/13	Turner	E	N44°50.440W068°47.272	123 Balsam Rd	round	Good	round 6"	Good	0	5 Good	Concrete	Good	Concrete	Good	yes	2'	Good	2'	Good	no		4.00	6.00	6.50	7.67	1.67	0.54
3/25/13	Turner	E	N44°50.446W068°47.256	126 Balsam Rd	round	Good	round 6"	Good	0	4 good	Concrete	Good	Concrete	Good	yes	18" 8"	good	18"	Good	no		4.00	5.00	5.17	5.92	0.92	0.35
3/25/13	Turner	E	N44°50.739W068°47.542	Judson @ Peruvian Way	Square	Good	square 4"	Good	0	good	Concrete	Good	Concrete	Good	yes	8' 12"	good	18"	Good	no		4.00	4.00	4.00	4.75	0.75	0.35
3/25/13	Turner	E	N44°50.583W068°47.400	Across from 38 Balsam rd	Square	Good	Square 8"	Good	0	3 good	Concrete	Good	Concrete	Good	yes	12" 18"	good	12" 18"	Good	no		4.00	4.33	5.50	6.58	2.25	0.50
3/25/13	Turner	E	N44°50.549W068°47.363	64 Balsam Rd	Square	Good	Square 8"	Good	0	Good	Concrete	Good	Concrete	Good	yes	6" 18"	good	6" 18"	Good	no		4.00	5.67	6.17	8.08	2.41	0.89
3/25/13	Turner	E	N44°50.607W068°47.531	20 Shady Lane	Square	Good	square 6"	Good	0	1 Good	Barrel	Good	Concrete	Good	no	12"	Good	12"	Good	no		4.00	4.75	5.25	6.58	1.83	0.62
3/25/13	Turner	E	N44°50.583W068°47.410	Across from 38 Balsam rd	Square	Good	square 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	no	12"	Good	12"	Good	no		4.00	4.17	5.33	7.00	2.83	0.78
3/25/13	Turner	E	N44°50.536W068°47.542	Balsam across from 25 Fenton	Square	Good	square 6"	Good	0	2 Good	Concrete	Good	Concrete	Good	yes	12"	Good	18"	Good	no		4.00	5.17	6.83	7.58	2.41	0.35
3/25/13	Turner	E	N44°50.396W068°47.216	Balsam across from 146	Square	Good	square 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	no			12"	Good	no		4.00	4.25	5.67	6.42	2.17	0.35
3/25/13	Turner	E	N44°50.403W068°47.208	146 Balsam Rd	Square	Good	square 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	yes	12"	Good	18"	Good	no		4.00	4.83	5.42	7.00	2.17	0.73
3/28/13	Turner	E	N44°50.596W068°47.419	26 Balsam	Square	Good	square 8"	good	0	2 Good	Concrete	Good	Concrete	Good	yes	18" 3'	Good	3'	Good	no		4.00	6.50	7.58	8.17	1.67	0.27
3/28/13	Turner	E	N44°50.608W068°47.525	19 Shady Ln	Square	Good	square 8"	good	0	2 Good	Concrete	Good	Concrete	Good	yes	3'	Good	3'	Good	no		4.00	5.58	5.75	7.83	2.25	0.97
3/28/13	Turner	E	N44°50.619W068°47.496	Shady lane @ Hydrant 65	Square	Good	square 8"	good	0	3	Barrel	Good	Concreta	Good	yes	3'	Good	3'	Good	No		4.00	7.17	7.17	9.25	2.08	0.97
07/02/12	Dunton	W	N44°48.657W068°47.389	458 Ohio St	Round	Good	Round 6"	Good	0	1 Good	Precast	Good	Precast	Good	no			12"	Good	No		4.00	5.00	5.00	7.50	2.50	1.16
07/02/12	Dunton	W	N44°48.616W068°47.252	403 Ohio St	Square	Good	Square 8"	Good	0	0	Pre/Bar	Poor						10"	Poor	No		0.00	4.33	4.83	6.00	1.67	0.00
07/02/12	Dunton	W	N44°48.562W068°47.030	326 Ohio St	Round	Good	Round 6"	Fair	0 All	Fair	Brick	Fair	Brick	Fair	no			8"		Yes	Brick	4.00	4.17	4.17	8.17	4.00	1.86
07/02/12	Dunton	W	N44°48.652W068°47.352	449 Ohio St	Round	Fair		Fair	0	1 Good/fair	Precast	Good	Precast	Good				8"		No		4.00	3.92	3.92	6.25	2.33	1.08
07/02/12		W	N44°48.591W068°47.151	374 Ohio St	Round	Good	Round 6"	Good	0	4 Good	Precast	Good	Precast	Good	no			8"		No		4.00	4.33	4.33	7.08	2.75	1.28
07/02/12	Dunten	W	N44°48.600W068°47.153	369 Ohio St	Round	Good	Round 6"	Good	0		Brick	Fair	Brick	Fair				8"		Yes		4.00	5.17	5.58	7.50	2.33	0.89
07/02/12	Dunton	W	N44°48.577W068°47.063	333 Ohio St	Round	Good	Round 6"	Good	0	4 Poor	Precast	Good	Precast	Good	no			8"	Fair	Yes		4.00	5.75	7.50	9.33	3.58	0.85
07/02/12	Dunton	W	N44°48.591W068°47.113	355 Ohio St	Round	Good	Round 6"	Good	0	0	Precast	Good		Good	no			8"	Good	Yes		4.00	5.42	5.42	8.42	3.00	1.40
07/02/12	Dunton	W	N44°48.612W068°47.216	391 Ohio St	Round	Good	Round 6"	Good			Brick	Poor	Brick	Poor				8"	Fair	yes		3.00	4.50	5.33	7.08	2.58	0.46
7/11/12		W	N44°48.377W068°46.828	192 Ohio St	Round	Good	Round 6"	Good	0 All	Good	Brick	Good	Brick	Good	no			8"	Good	Yes	Brick	4.00		5.00	10.00		2.33
7/11/12		W	N44°48.557W068°47.012	318 Ohio St	Round	Good	Round 6"	Good	0	7 Good	Concrete	Good	Concrete	Good	no			8"	Good	No		4.00		6.00	8.00		0.93
7/12/12		W	N44°48.165W68°46.688	Ohio / Hudson	Round	Good	Round 8"	Good	0 All	Good	Brick	Good	Brick	Good	no			8"	Good	Yes	Brick	4.00	5.00	6.00	9.00	4.00	1.40
7/12/12		W	N44°48.128W068°46.609	44 Ohio	Round	Good	Round 6"	Good	0 All	Good	Brick	Good	Brick	Good	yes	10"	Good	8"	Good	Yes	Brick	4.00		4.00	9.00	9.00	2.33
7/12/12		W	N44°48.342W068°46.823	178 Ohio	Round	Good	Round 8"	Good	0 All	Good	Brick	Good	Brick	Good	no			10"	Good	Yes	Metal	5.00		9.00	12.00	12.00	2.18
7/12/12		W	N44°48.606W068°47.187	Across from 381 Ohio	Round	Good	Round 6"	Good	0	2 Good	Concrete	Good	Concrete	Good	yes	10"		8"	Good	Yes	Metal	4.00	5.00	6.00	7.00	2.00	0.47
7/24/12		W		592 Ohio St	Square	Good	Square 6"	Good		2 Good	Concrete	Good	Concrete	Good	yes	10"	Good	10"	Good	no		4.00	4.00	4.50	7.00	3.00	1.16
7/24/12		W		Ohio At Eighteenth St	Round	Good	Round 6"	Good		3 Good	Concrete	Good	Concrete	Good					Good	Yes	Metal	4.00	5.00	6.00	7.00	2.00	0.47
7/24/12		W		Ohio & Seventeenth (North Side)	Square	Good	Square 6"	Good		4 Good	Concrete	Good	Concrete	Good	yes	10"	Good	10"	Good	Yes	Steel	4.00	4.00	4.50	6.00	2.00	0.70
7/24/12		W		Ohio @ Seventeeth (South Side)	Square	Good	Square 6"	Good		2 Good	Concrete	Good	Concrete	Good	yes	10"	Good	10"	Good	yes	Steel	4.00	3.00	3.00	5.00	2.00	0.93
7/24/12		W		Ohio @ Sixteenth (North Side)	Round	Good	Round 6"	Good	all	Good	Brick	Good	Brick	Good				8"	Good	Yes	Metal	4.00	3.00	3.00	7.00	4.00	1.86
7/24/12		W		506 Ohio St	Round	Good	Round 8"	Good		2 Good	Barrel	Fair	Barrel	Fair				8"	Good	yes	Steel	4.00	4.00	4.00	6.00	2.00	0.93
8/1/12		W		162 Court St	Round	Good	Round 8"	Good	0	2 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	PCV	4.00	3.00	3.00	5.00	2.00	0.93
8/1/12		W		Fifteenth & Hannibal	Round	Good	Round 6"	Good	0 All	Good	Brick	Good	Brick	Good	yes	4'	Good	8"	Good	Yes	Metal	4.00	6.00	7.00	10.00	4.00	1.40
8/1/12		W		Ohio & Hammond St Store Side	Square	Good	Square 8"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	no		4.00		5.00	8.00	8.00	1.40
8/1/12		W		Across from 117 Court St	Round	Good	Round 6"	Good	0 All	Good	Brick	Good	Brick	Good	no			8"	Good	yes	Metal	4.00	5.00	6.00	9.00	4.00	1.40
9/13/12		W		338 Ohio St	Round	Good	Round 6"	Good	0	3 good	Concrete	Good	Concrete	Good	no			8"	Good	Yes	Metal	4.00	3.00	3.00	6.00	3.00	1.40
9/13/12		W		Doane St @ Miller West Side	Round	Good			2		Concrete	Good	Concrete	Good	yes	6"10"	Fair	12"	Fair	no		4.00	2.00	3.00	4.00	2.00	0.47
9/13/12		W		Doane St @ Miller St East Side	Round	Good	Round 6"	Good		4 Fair	Concrete		Concrete		yes		good		fair	no		4.00	4.00	4.00	5.00	1.00	0.47
9/17/12		W		117 Court St	Square	Good	Square 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	no			12"	Good	yes	Metal	5.00	6.00	8.00	11.00	5.00	2.18
9/17/12		W	N44°48.145W068°46.459	Across from old Police Dept -Court St	Round	Good	Round 6"	Good	0 all	good	Brick	Good	Brick	Good	yes	8'	Good	8'	Good	yes	Metal	4.00		3.00	8.00	8.00	2.33
9/17/12		W	N44°48.182W068°46.536	70 Court St	Round	Good	Round 6"	Good	0 All	good	Brick	Good	Brick	Good	no			10'	Good	No		4.00		3.00	11.00	11.00	3.72
9/17/12		W	N44°48.295W068°46.750	159 Court St	Square	Good	square 8"	Good	0 All	good	Brick	Good	Brick	Gaod	no			12"	Good	yes	Metal	5.00	7.00	8.00	11.00	4.00	2.18
9/17/12		W	N44°47.365W068°46.659	Buck/Maine	round	Good	round 6"	Good	0 All	good	Brick	Good	Brick	Good	no			8"	Good	no		4.00		5.00	7.00	7.00	0.93

9/17/12	W	N44°47.369W068°46.662	Buck.Main Bangor Daily	round	Good	round 6"	Good	0	3 good	Concrete	Good	Concrete	Good	no			10'	Good	no		4.00		4.00	7.00	7.00	1.40
9/17/12	W	N44°47.457W068°46.858	103 Buck St	round	Good	round 6"	Good	0 All	good	Brick	Good	Brick	Good	no			8"	Good	yes	Metal	4.00	5.00	6.00	12.00	7.00	2.79
9/17/12	W	N44°47.531W068°47.018	177 Buck St	round	Good	round 6"	Good	0	6 good	Concrete	Good	Concrete	Good	no			5"	Good	no		4.00	3.00	4.00	6.00	3.00	0.93
9/18/12	W	N44°47.669W068°47.308	295 Buck st	round	Good	round 6"	Good	0 All	good	Brick	Good	Brick	Good	no			10"	Good	No		4.00		5.00	6.00	6.00	0.47
9/18/12	W	N44°47.734W068°47.469	Buck & W. Broadway	round	Good	round 6"	Good	0	4 good	Concrete	Good	Concrete	Good	no			8'	Good	yes	plastic	4.00	4.00	5.00	7.00	3.00	0.93
9/18/12	W	N44°47.687W068°47.365	324 Buck St	round	Good	round 6"	Good	0	3 good	Concrete	Good	Concrete	Good	no			8'	Good	no		4.00		4.00	7.00	7.00	1.40
9/18/12	W	N44°47.681W068°47.355	Buck & 7th	round	Good	round 6"	Good	0	2	Concrete	Good	Concrete	Good	no			8"	Good	yes	Metal	4.00	4.00	8.00	9.00	5.00	0.47
9/18/12	W	N44°47.615W068°47.215	Buck & Hewey St	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	yes	Metal	4.00	4.00	8.00	9.00	5.00	0.47
9/18/12	W	N44°47.542W068°47.057	Buck across from 3rd	round	Good	round 6"	Good	0	0	Concrete	Good	Concreta	Good	no			8"	Good	no		4.00	5.00	6.00	8.00	3.00	0.93
9/18/12	W	N44°47.523W068°47.015	177 Buck St Track side	round	Good	round 6"	Good	0	4 good	Concrete	Good	Concrete	Good	no			8"	Good	no		4.00	4.00	5.00	8.00	4.00	1.40
9/18/12	W	N44°47.447W068°46.846	Across from Buck St-Track side	round	Good	round 6"	Good	0 All	good	Brick	Good	Brick	Gaod	no			8'	Good	no		4.00	4.00	5.00	8.00	4.00	1.40
9/18/12	W	N44°48.674W068°46.937	26 Dayton St-stream side	Square	Good	square 6"	Good	0	0	Concrete	Good	Concrete	Good	na			18"	Good	no		4.00	5.00	6.00	7.00	2.00	0.47
9/18/12	W	N44°48.673W068°46.936	26 Dayton St	Square	Good	square 6"	Good	0	2 Poor	Concrete	Good	Concrete	Good	na			10"	Good	No		4.00	5.00	6.00	7.00	2.00	0.47
9/20/12	W	N44°48.941W068°47.903	688 Ohio st	Square	Good	square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	12"	Good	12"	Good	no		4.00		3.00	5.00	5.00	0.93
9/20/12	W	N44°48.934W068°47.894	680 Ohio St	Square	Good	square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	12"	Good	12"	Good	No		4.00		3.00	5.00	5.00	0.93
9/20/12	W	N44°48.206W068°46.576	89 Court St	round	poor	round 6"	Good	0 All	good	Brick	Good	Brick	Good	no			5"	Good	no		4.00	8.00	9.00	12.00	4.00	1.40
9/20/12	W	N44°47.692W068°47.363	323 Buck St	round	Good	round 6"	Good	0 All	good	Brick	Good	Brick	Good	no			8'	Good	Yes	Metal	4.00		3.00	8.00	8.00	2.33
9/20/12	W	N44°47.742W068°47.471	367 Buck St	round	Good	round 6"	Good	0	2 good	Concrete	Good	Concrete	Good	no			8"	Good	Yes	plastic	4.00	3.00	4.00	7.00	4.00	1.40
9/20/12	W	N44°47.795W068°47.920	95 Silver	Square	Good	square 6"	Good	0 all	good	Brick	Good	Brick	Good	no			8"	Good	Yes	Metal	4.00		2.00	4.00	4.00	0.93
9/20/12	W	N44°47.833W068°47.996	65 Silver	round	Good	round 6"	Good	0 all	good	Brick	Good	Brick	Good	yes	12"	Good	12"	Good	no		4.00		3.00	4.00	4.00	0.47
9/20/12	W	N44°47.792E068°47.908	Silver & Graham	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	18"	Good	18"	Good	No		4.00		3.00	5.00	5.00	0.93
9/20/12	W	N44°47.584W068°47.615	51 Crestmont	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	no		4.00	3.00	4.00	6.00	3.00	0.93
9/20/12	W	N44°47.816W068°47.577	109 Webster Ave	round	Good	round 6"	Good	0 All		Brick	Good	Brick	Good	No			8'	Good	Yes	Metal	4.00		3.00	4.00	4.00	0.47
3/12/13	W	N44°48.227W068°46.772	122 Ohio st	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	no			8"	Good	Yes	pvc	4.00	4.00	5.00	6.00	2.00	0.47
3/12/13	W	N44°48.167W068°46.682	Ohio/Hudson	round	Good	round 6"	Good	0 all	good	Brick	Good	Brick	Good	no			8"	Good	Yes	brick	4.00	6.00	9.00	9.00	3.00	0.00
3/12/13	W	N44°48.184W068°46.726	Chatum/Ohio	Square	Good	square 6"	Good	0	1 good	Concrete	Good	Concrete	Good	yes	6"	Good	6"	Good	no		4.00	3.00	4.00	5.00	2.00	0.47
3/12/13	W	N44°48.185W068°46.729	Chatham/Ohio	Square	Good	square 6"	Good	0	0 good	Concrete	Good	Concrete	Good	yes	6" 6"	Good	8"	Good	no		4.00	3.00	4.00	5.00	2.00	0.47
3/12/13	W	N44°48.221W068°46.776	George/Ohio	round		round 6"		0	3	Concrete		Concrete		no			8"		Yes	pvc	4.00	4.00	5.00	6.00	2.00	0.47
3/12/13	W	N44°48.223W068°46.776	George/Ohio	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	no			8'	Good	no		4.00	3.00	4.00	5.00	2.00	0.47
3/12/13	W	N44°48.251W068°46.794	Ohio/Highland	round	Good	round 6"	Good	0	5 Good	Concrete	Good	Concrete	Good	no			6'	Good	Yes	pvc	4.00	4.00	5.00	5.00	1.00	0.00
3/12/13	W	N44°48.322W068°46.812	166 Ohio	round	Good	round 6"	Good	0 All	Good	Brick	Good	Brick	Good				8"	Good	yes	Metal	3.00	4.00	5.00	5.00	1.00	0.00
3/12/13	W	N44°48.326W068°46.825	Charles/Ohio	Square	Good	square 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	yes	6"	Good	8'	Good	yes	Metal	4.00	5.00	5.00	7.00	2.00	0.93
3/12/13	W	N44°48.340W068°46.817	176 Ohio St	round	Good	round 6"	Good	0 All	Good	Brick	Good	Brick	Good	no			15"	Good	yes	Metal	4.00	8.00	9.00	10.00	2.00	0.47
3/12/13	W	N44°48.380W068°46.828	192 Ohio St	round	Good	round 6"	Good	0 All	Good	Brick	Good	Brick	Good	no			8"	Good	yes	brick	4.00	6.00	7.00	8.00	2.00	0.47
3/12/13	W	N44°48.427W068°46.835	Ohio/James	Square	Good	square 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	12"	Good	6"	Good	no		4.00		7.00	8.00	8.00	0.47
3/12/13	W	N44°48.126W068°46.604	44 Ohio St	round	Good	round 6"	Good	0 all	Good	Brick	Good	Brick	Good	yes	10"	Good	8"	Good	yes	brick	4.00	6.00	7.00	10.00	4.00	1.40
3/12/13	W	N44°48.214W068°46.929	64 Charles St	round	Good	round 6"	Good	0 all	Good	Brick	Good	Brick	Good	no			8'	Good	yes	brick	4.00	5.00	6.00	7.00	2.00	0.47
3/12/13	W	N44°48.165W068°46.685	3 Hudson St	round	Good	round 6"	Good	0 all	Good	Concrete	Good	Concrete	Good	no			8"	Good	No		4.00	3.00	4.00	5.00	2.00	0.47
3/12/13	W	N44°48.460W068°46.680	Across from 3 Hudson St	round	Good	round 6"	Good	0		Concrete	Good	Concrete	Good	no			8"	Good	yes	pvc	4.00	5.00	6.00	7.00	2.00	0.47
3/13/13	W	N44°48.332W068°46.829	3 Charles St	Square	Good	square 6"	Good	0	0	Concrete	Good	Concrete	Good	na			8"	Good	yes	Metal	4.00	5.00	5.00	8.00	3.00	1.40
3/13/13	W	N44°48.216W068°46.930	Charles/Union	round	Good	round 6"	Good	0	3 Good	Concrete	Good	Concrete	Good	na			8"	Good	no		4.00	4.00	5.00	6.00	2.00	0.47
3/13/13	W	N44°48.282W068°46.865	Charles/Highland	round	Good	round 6"	Good	0	2 Good	Concrete	Good	Brick	Good	no			8"	Good	yes	brick	4.00	5.00	6.00	7.00	2.00	0.47
3/13/13	W	N44°48.475W068°46.845	Ohio across from Smith St	Square	Good	square 6"	Good	0	1 Good	Concrete	Good	Concrete	Good	no			8"	Good	yes	pvc	4.00	2.00	2.00	3.00	1.00	0.47
4/4/13		N44°48.278W068°47.065	Thomas Hill & Union North Side	round	Good	round 6"	Good	0	Good	Brick	Good	cement	Good	no			8"	Good	yes	pvc	5.00	3.42	5.08	6.25	2.83	0.85
4/4/13		N44°48.277W068°47.055	Thomas Hill & Union South Side	square	Good	f type 6"	good										8'	Good	no		5.00		2.75	3.08	3.08	0.24
4/4/13		N44°48.302W068°47.123	Jackson St North Side	round	Good	round 6"		3	2 Fair					no			8'	Good	yes	pvc	5.00	3.67	3.92	5.25	1.58	0.97
4/4/13		N44°48.339W068°47.180	Cottage & Union South Side	round	Good	Round 6"	Good	0	6 good	Concrete	Good	Concrete	Good	no			8"	Good	No		5.00	5.42	5.92	7.25	1.83	0.97
4/4/13		N44°48.382W068°47.145	92 Cottage St	round	Good	Round 6"	Good	1	4 good	Concrete	Good			yes	6"	Good					5.00	3.83	5.17	6.17	2.34	0.73
4/4/13		N44°48.409W068°47.118	Cottage & Highland	round	Good	round 6'	Good	0 all	good	Brick	Good			no			8"	Good	yes	brick	5.00	4.00	5.50	6.33	2.33	0.60
4/10/13		N44°49.249W068°48.871	22 Bolling Dr	Square	Good	square 6"	Good	0 All	good	Brick	Good	Concrete	Good	yes		3	6"	Good	yes		3.00	3.00	8.00	9.00	6.00	0.26
4/10/13		N44°49.249W068°48.871	35/47 Bolling Dr	Square	Good	square 6"	Good	0	good	Brick	Fair	Concrete	Good				8"	fair	yes		5.00	4.00	6.00	8.00	4.00	1.45
4/10/13		N44°49.357W068°48.790	83 Bolling Dr	rectangle	Good	rectangle 6"	Good	0	Poor	Concrete	Good	Concrete	Good	yes	12"		12"	Good	yes		4.00		8.00	9.00	9.00	0.47
4/12/13		N44°49.177W068°48.836	Corner of Bolling Dr & Mitchell	rectangle	Good	rectangle 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	8"		8'	Good	no		5.00		10.42	11.25	11.25	0.60
4/12/13		N44°49.645W068°48.770	Corner Ohio & Bolling	rectangle		rectangle 6"		0		con/brick		Concrete		yes	8"		8'		No		5.00		5.40	7.00	7.00	1.16
4/12/13		N44°49.177W068°48.836	139 Bolling Dr	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	18"		8" 10" 18"	good/fair	no		5.00	7.00	7.60	8.00	1.00	0.29
4/12/13		N44°49.177W068°48.836	193 Bolling Dr	rectangle	Good	rectangle 6"	Good	0	2 Fair	Concrete	Good	Concrete	Good				10'	good	no		5.00		6.00	8.00	8.00	1.45
4/12/13		N44°49.506W068°48.739	170 Bolling Dr	rectangle	Good	rectangle 6"	Good	0	B Poor	Concrete	Good	Concrete	Good	yes	24" 6"		24"	fair	no		5.00	7.00	7.08	7.50	0.50	0.31
4/12/13		N44°49.518W068°48.805	126 Langley	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	yes	10"		10"	good	no		4.00	6.60	6.60	9.00	2.40	1.12
4/12/13			211 Langley & Bolling on Bolling	round	Good	round	Good	0	2 good	con/bar	Good	Barrel		no			2'	good/fair	no		4.00	6.00	6.60	6.60	0.60	0.00
4/12/13			Langley & Bolling on Langley	round	fair	round 4"	Good	0	0	Concrete	Good	Concrete	Poor	yes	18"		18"	good	no		4.00	6.00	6.60	6.60	0.60	0.00
4/15/13		N44°49.486W068°48.819	108 Langley	Square	Good	square 8"	Good	0	14 Fair	Brick	Fair	Barrel	Fair	yes	12"		24"	good	no		4.00	6.60	6.60	5.60	2.00	0.93
4/15/13		N44°49.443W068°48.824	90 Langley	Square	Good	square 8"	Good	0	9 Fair	Barrel	Fair	Barrel	Fair	yes	8"		6"	good	no		4.00	6.00	6.60	9.00	3.00	1.12
4/15/13		N44°49.422W068°48.824	Parking lot of 42 Langley	round	Good	round 6"	Good	0	5 good	Concrete	Good	Concrete	Good	yes	10"		10"	good	No		4.00	7.00	7.00	8.00	1.00	0.47
4/15/13			74 Langley	rectangle	fair	rectangle 4"	fair	0	Poor	Brick	Fair	Brick	Good	yes	8"		8"	good	no		4.00		1.50	8.50	6.50	3.26
4/15/13		N44°49.287W068°48.874	Bolling & Langley across from 35 Bolling	rectangle	Good	rectangle 4"	Good	0	4 Poor	Barrel	Fair	Concrete	Fair	no			12"	fair	No				2.60	3.00	3.00	0.00
4/16/13		N44°49.292W068°48.873	across from 47 Bolling on Langley	rectangle	Good	rectangle 4"	Good	0	12 Fair	Barrel	Fair	Barrel		yes	10"		10"	fair			4.00	4.80	5.30	8.40	3.60	1.44
4/16/13		N44°49.323W068°48.907	Hydrant 867 Langley after 15 Langley	rectangle	Good	rectangle 4"	Good	0	12 fair/poor	Barrel		Barrel		yes	10"		10'	fair	no		4.00		6.40	8.00	8.00	0.74
4/16/13		N44°49.364W064°48.896	37 Langley	rectangle	fair	rectangle 4"	fair	0	11 fair	Barrel	Fair	Barrel	Fair	yes	10"		10'	fair	no		4.00		7.60	9.60	9.60	0.93
4/16/13		N44°45.412W068°48.841	Corner of Langley & Mitchell by hydrant 868	Square	Good	square 8"	Good	0	3 Poor	Concrete	Good	Concrete	Good				8"	good	no		4.00		2.00	4.00	4.00	0.93
4/16/13		N44°49.486W068°48.810	113 Langley	Square	Good	square 8"	Good	0	0	Concrete	Good	Concrete	Good	yes	12" 18"		18"	good	no		4.00	6.60	7.00	7.60	1.00	0.28
4/16/13		N44°49.516W068°48.797	129 Langley	rectangle	Good	rectangle 4"	Good	0	11 fair	Barrel	Fair	Barrel	Fair	yes	12" 18"		18"	fair	no		4.00		6.80	7.60	7.60	0.37
4/16/13		N44°49.537W068°48.767	135 Langley Corner of Billings & Langley	rectangle	Good	rectangle 4"	Good	0	11 fair/poor	Barrel	Fair	Barrel	Fair	yes	18" 18"		24"	fair	no		4.00		7.00	8.60	8.60	0.74

4/16/13	N44°49.639W068°48.771	Corner of Ohio & Bolling on Bolling Right	rectangle	Good	rectangle 4"	Good	0	0	Barrel	Good	Concrete	Good	No		8"	good	no		3.00		2.00	2.50	2.50	0.13
4/16/13	N44°49.458W068°48.717	144 Bolling	round	Good	round 6"	Good	0	0	Concrete	Good	Concrete	Good	no		10"	good	no		4.00	4.00	4.60	6.00	2.00	0.65
4/17/13	N44°45.383W068°48.746	Mitchell & Bolling on Bolling across from 97 Bolling	Square	Good	square 8"	Good	0	9	Poor	Barrel	Poor	Barrel	fair	yes	12"	12"	fair	no		4.00		4.60	8.40	8.40	1.77
4/17/13	N44°49.355W068°48.780	86 Bolling	rectangle	Good	rectangle 6"	Good	0	9	Poor	Barrel	Fair	Barrel		yes	18"	12"	good	no		4.00		7.00	9.00	9.00	0.93
4/17/13	N44°49.361W068°48.680	Griffin & Mitchell right side of Mitchell	rectangle	Good	rectangle 4"	Good	0	0		Barrel	Fair	Barrel		yes	24" 24"	36"	good	no		4.00	6.20	7.60	8.00	1.80	0.19
4/17/13	N44°49.374W068°48.705	11 Mitchell	rectangle	Good	rectangle 4"	Good	0	8	Poor	Barrel	Fair	Barrel	Fair	yes	8"	18"	fair	no		4.00	4.60	5.00	6.00	1.40	0.47
4/17/13	N44°49.366W068°48.698	225 Mitchell	rectangle	Good	rectangle 4"	Good	0	10	Poor	Barrel	Poor	Barrel	Fair	yes	12" 12"	12"	good	no		4.00		6.00	7.00	7.00	0.93
4/17/13	N44°49.398W068°48.799	50 Mitchell	rectangle	Good	rectangle 4"	Good	0	7	Poor	Barrel	Fair	Barrel	Fair	yes	8"	12"	fair	no		4.00		1.00	8.00	8.00	3.26
4/23/13	N44°49.388W068°48.747	across from 35 Mitchell	rectangle	Good	rectangle 4"	Good	0	9	Poor	Barrel	Fair	Barrel	Fair	yes	12" 12"	12"	fair	no		4.00		1.00	7.40	7.40	2.98
4/30/13	N44°49.358W068°48.683	corner of Mitchell & Griffin 219 Griffin on Mitchell	rectangle	Good	rectangle 4"	Good	0	0		Barrel	Good	Barrel	Good	yes	24" 12"	24"	good	no		4.00	6.08	6.08	7.00	0.92	0.43
4/30/13	N44°48.120W068°47.809	Corner of Allen & McGlaufin on McGlaufin	round	Good	round 4"	Good	0	2	fair	Barrel	Good	Barrel		no		8"	good	no		4.00	4.00	5.00	7.00	3.00	0.93
5/2/13	N44°48.639W068°47.142	Hydrant 752 #12 Tyler	round	Good	reund 6"	Good	0	All	Poor	Brick	Poor	Brick	Poor	yes	4" 8"	12"	fair	yes	Metal	4.00	4.00	6.00	8.00	4.00	0.93
5/2/13	N44.48.640W068°47.143	29 Tyler on corner	round	Good	reund 4"		0	all	fair	Brick	Fair	Brick	fair	yes	8"	6" 6"	fair	no		4.00		6.60	7.00	7.00	0.19

CITY OF BANGOR CATCH BASIN EVALUATION

DATE: _____ EVALUATED BY: _____

GPS LOCATION: _____

LOCATION : _____

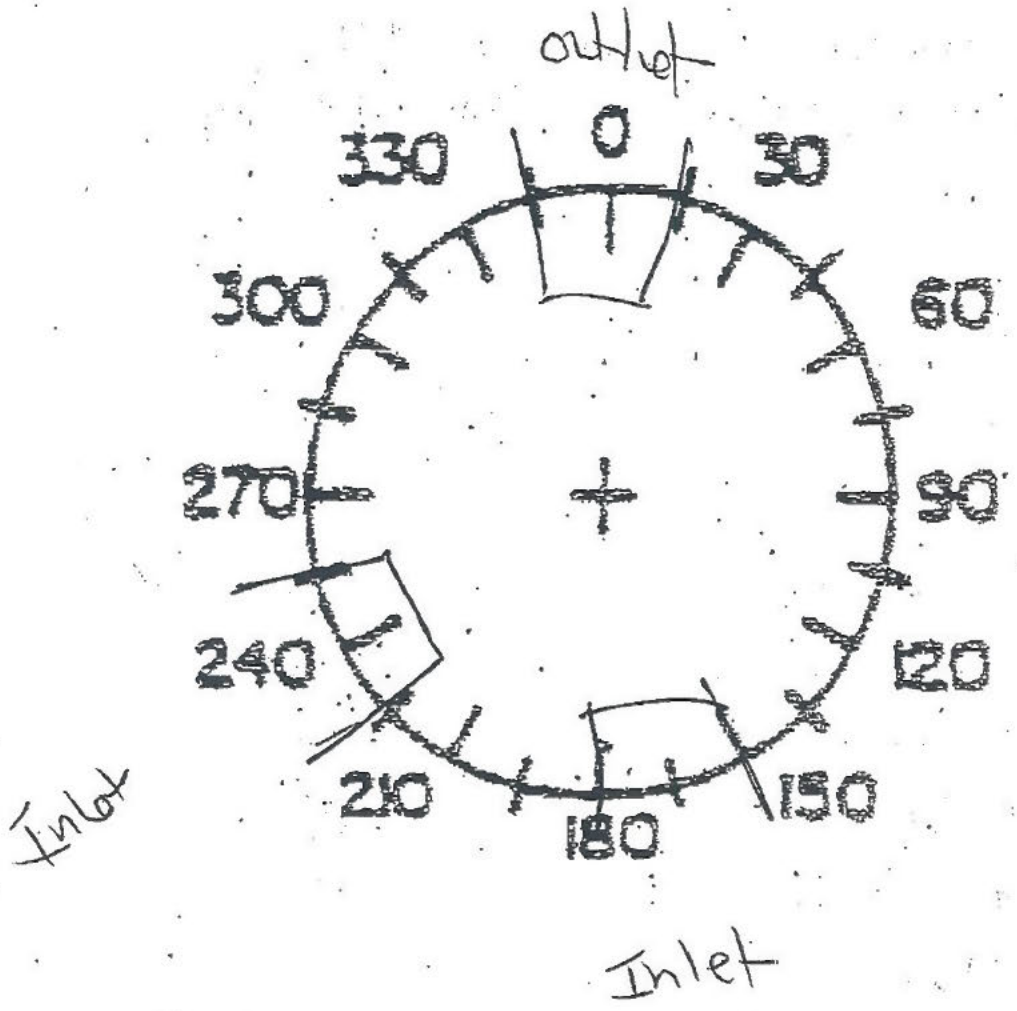
CONSTRUCTION & CONDITION

ITEM	CONSTR MATERIAL (SIZE & DEFECTS)	CONDITION		
		GOOD	FAIR	POOR
COVER				
FRAME				
RISERS				
BRICKS				
WALLS				
BASE				
INLETS				
OUTLET				
TRAP				

MEASUREMENTS

DIAMETER	
TOP OF FRAME TO WATER (Outlet)	
TOP OF FRAME TO SOLID	
TOP OF FRAME TO BOTTOM	

NOTES:


outlet
0
30
60
90
120
150
180
210
240
270
300
330
Inlet
Inlet

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeremy Marth **Date:** 9/26/12

Name of Site/Project: Kiley + Foley - 299 Union **Signature:**

Urban Impaired Watershed: Kenduskeag (**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken No

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: jerry p. Munch **Date:** 12-11-12

Name of Site/Project: EMMC – Retaining wall Renovation **Signature:** [signature]

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken N D

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jay P Mack **Date:** 9-5-12

Name of Site/Project: Team Properties 17 Deer Pa **Signature:**

Urban Impaired Watershed: Kenduskeag **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** □ **No** ☒

If no, state corrective action and date completed Mulch hay on unstable soils

Is there offsite tracking of sediment or fill material? **Yes** □ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** □

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** □ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** □

If yes, state corrective action & date completed mulch hay on soils on-worked unstable areas follow-up needed

Photos Taken _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: jay p Mills **Date:** 9-5-12

Name of Site/Project: EMCC Hogan Rd **Signature:** [signature]

Urban Impaired Watershed: D-Stem (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken NJ

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of **Inspector:** jeremy ponte   Date: 8-09-12

Name of Site/Project: Sites Kathyn Lane   **Signature:** [signature]

Urban Impaired Watershed: P-Stream (**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed

Photos Taken

follow-up to previous inspect

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeremy P. Mush **Date:** 7-16-12

Name of Site/Project: S. Tes - Kathy Ann Lane **Signature:**

Urban Impaired Watershed: P-Stream (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☒ **No** ☐

If yes, state corrective action and date completed Street sweeping needed spoke w/ contractor

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed Mud on road -

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed street sweep

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeremy P Mark **Date:** 9-19-12

Name of Site/Project: Timka – Gaeghan – Main St. **Signature:** [signature]

Urban Impaired Watershed: Penobscot (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jerry Poirier **Date:** 11-19-12

Name of Site/Project: Bangor Savings Bank - Maine Ave Parking lot expansion **Signature:**

Urban Impaired Watershed: Birch **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jerry P Mutz **Date:** 10-11-12

Name of Site/Project: Bangor Gas **Signature:**

Urban Impaired Watershed: Birch (**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken W1

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: jeff pMurtz **Date:** 8-9-12

Name of Site/Project: Bangor Gas **Signature:**

Urban Impaired Watershed: Birch Stream **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken WD

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeff Martin **Date:** 11-9-12

Name of Site/Project: Waterfront - COB **Signature:**

Urban Impaired Watershed: Penobscot (**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes** ~~☒~~ **No** ~~☒~~

If no, state corrective action and date completed Mulch hay needed - spoke w/ Engineer for winter stabilization

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ~~☒~~

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ~~☒~~

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ~~☒~~

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ~~☒~~ **No** ☐

If yes, state corrective action & date completed Mulch Hay - winter stabilization

Photos Taken NV

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jerry P. Mank **Date:** 11-9-12

Name of Site/Project: Rock Church – 1195 Ohio **Signature:** [signature]

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ☒

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeff P. Mack **Date:** 9-19-12

Name of Site/Project: Rock Church 1195 Ohio St. **Signature:** [signature]

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken No

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: jeremy p smith **Date:** 10-12-12

Name of Site/Project: 41 Ambrose Sites **Signature:** [signature]

Urban Impaired Watershed: P-Stream **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☒ **No** ☐

If yes, state corrective action and date completed No mine tracking

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken N D

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: jay p mulkern **Date:** 9-13-12

Name of Site/Project: 41 Primrose Sites **Signature:**

Urban Impaired Watershed: P-Stream **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☒ **No** ☐

If yes, state corrective action and date completed tracking in private road.

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed Street Sweeping – spoke w/ contractor addressed

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jerry P. Munson **Date:** 2-7-12

Name of Site/Project: Jean Properties 215 Prest **Signature:** [signature]

Urban Impaired Watershed: Penobscot **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ☐

If no, state corrective action and date completed N/A

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeremy Martin **Date:** 8-13-12

Name of Site/Project: Rolling Meadows S/b. 503 V **Signature:** [signature]

Urban Impaired Watershed: P-Stream (**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☒ **No** ☐

If yes, state corrective action and date completed Tracking in road – spoke w. R contractor – sweep road. contractor completed

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☒ **No** ☐

If yes, state corrective action & date completed in road – spoke w. R contractor road swept

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken N/A

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jerry McM[illegible] **Date:** 7-17-12

Name of Site/Project: AVSP 878 Stillwater **Signature:** [signature]

Urban Impaired Watershed: P- Stream **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

grade + fill

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed

Photos Taken No

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeremy P Mank **Date:** 8-27-12

Name of Site/Project: ALSD **Signature:**

Urban Impaired Watershed: P-Stream (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Is Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? Yes ☐ No ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: [illegible] **Date:** 8-1-12

Name of Site/Project: AVSID 878 St. Illegible **Signature:** [illegible]

Urban Impaired Watershed: P- Stream **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Photos Taken NO

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeremy Martin **Date:** 5-15-12

Name of Site/Project: Sprague | Gardner Army Reserve St. **Signature:** [signature]

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Photos Taken No

Road work only - Stable

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__11/28/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road **Signature**: _Amanda Soucier_____
Post-Construction Post-Rain Inspection

Urban Impaired Watershed: __Penjajawoc_____**(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes □ X** **No □**

If no, state corrective action and date completed_____

Is there offsite tracking of sediment or fill material? **Yes □** **No □X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes □X** **No □**

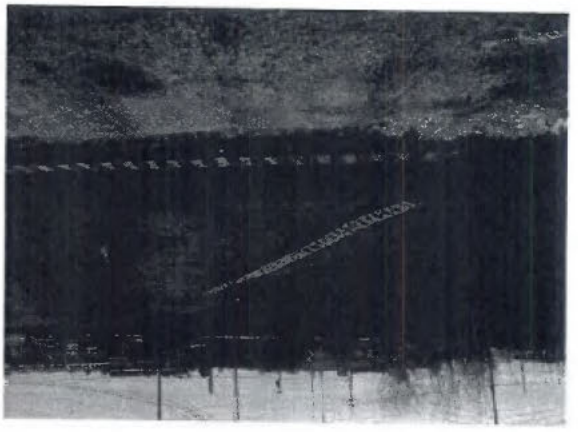
If no, state corrective action and date completed_____

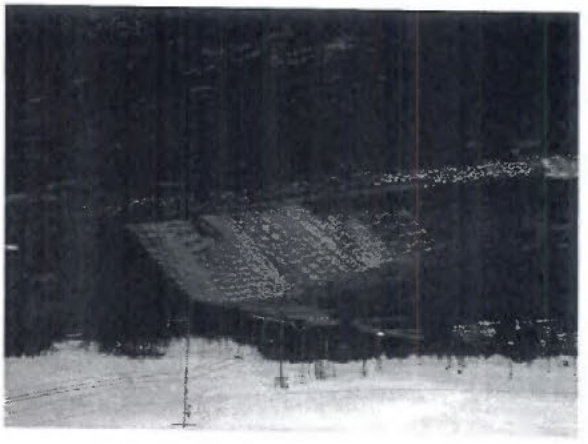
Are there signs of Sedimentation leaving the site? **Yes □ X** **No □**

If yes, state corrective action & date completed____Significant rain in late October caused washout of newly placed loam along banks of Penjajawoc. _____

Are additional BMPs required for drainage or erosion control? **Yes □X** **No □**
Additional winter stabilization was put in place.

Photos Taken ____Yes __





Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__8/29/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road PreCon Inspection **Signature:** _Amanda Soucier____

Urban Impaired Watershed: __Penjajawoc_____**(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes □X** **No □**

If no, state corrective action and date completed_____

Is there offsite tracking of sediment or fill material? **Yes □** **No □X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes □X** **No □**

If no, state corrective action and date completed_____

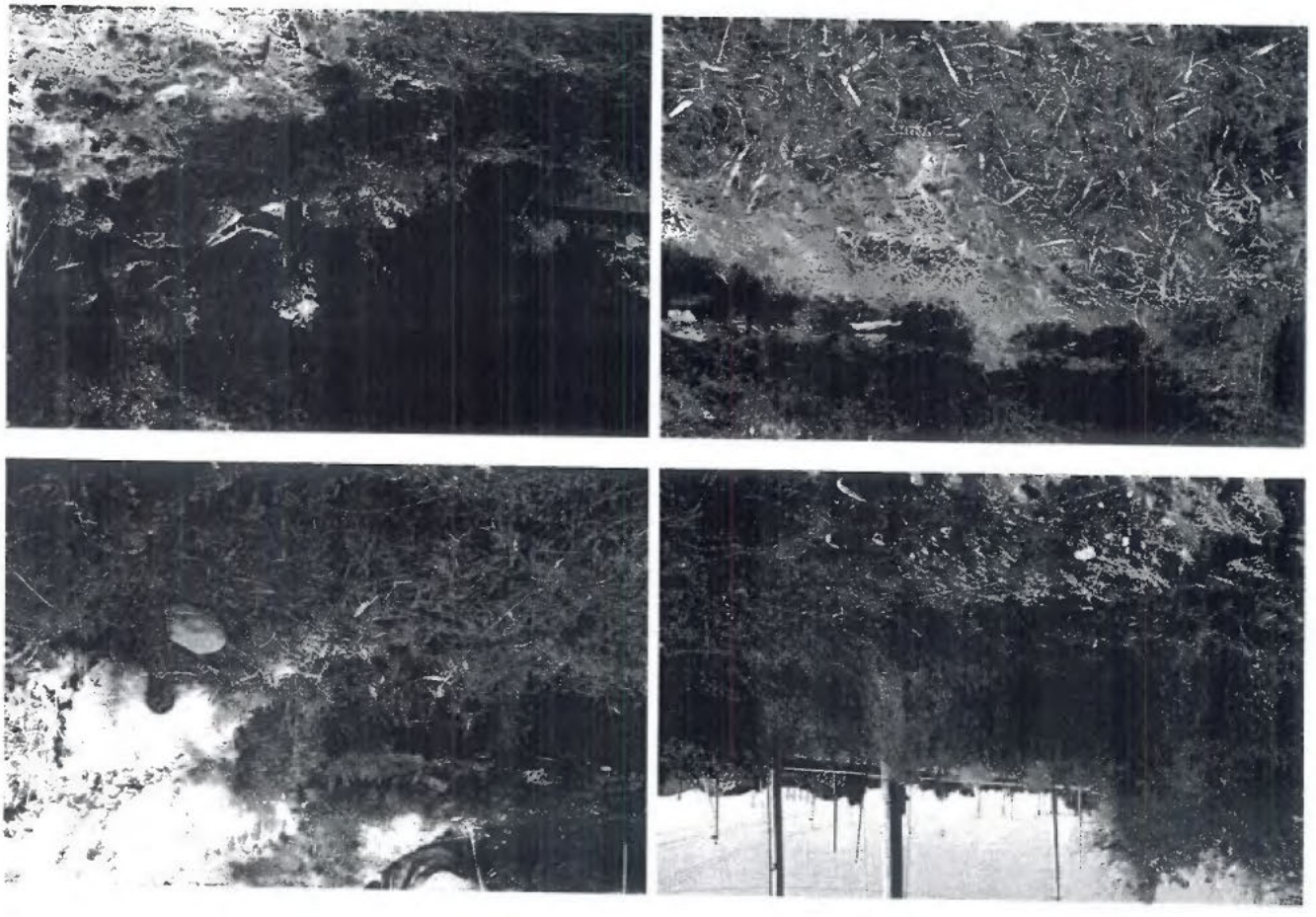
Are there signs of Sedimentation leaving the site? **Yes □** **No □x**

If yes, state corrective action & date completed_____

Are additional BMPs required for drainage or erosion control? **Yes □** **No □x**

If yes, state corrective action & date completed_____

Photos Taken ____Yes 2568-2582_____



Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__9/4-6/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road **Signature:** _Amanda Soucier_____
Inspection before/after 3" rain event 9/5/12

Urban Impaired Watershed: __Penjajawoc_____**(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes □X** **No □**

If no, state corrective action and date completed_____

Is there offsite tracking of sediment or fill material? **Yes □** **No □X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes □X** **No □**

If no, state corrective action and date completed_____

Are there signs of Sedimentation leaving the site? **Yes □** **No □X**

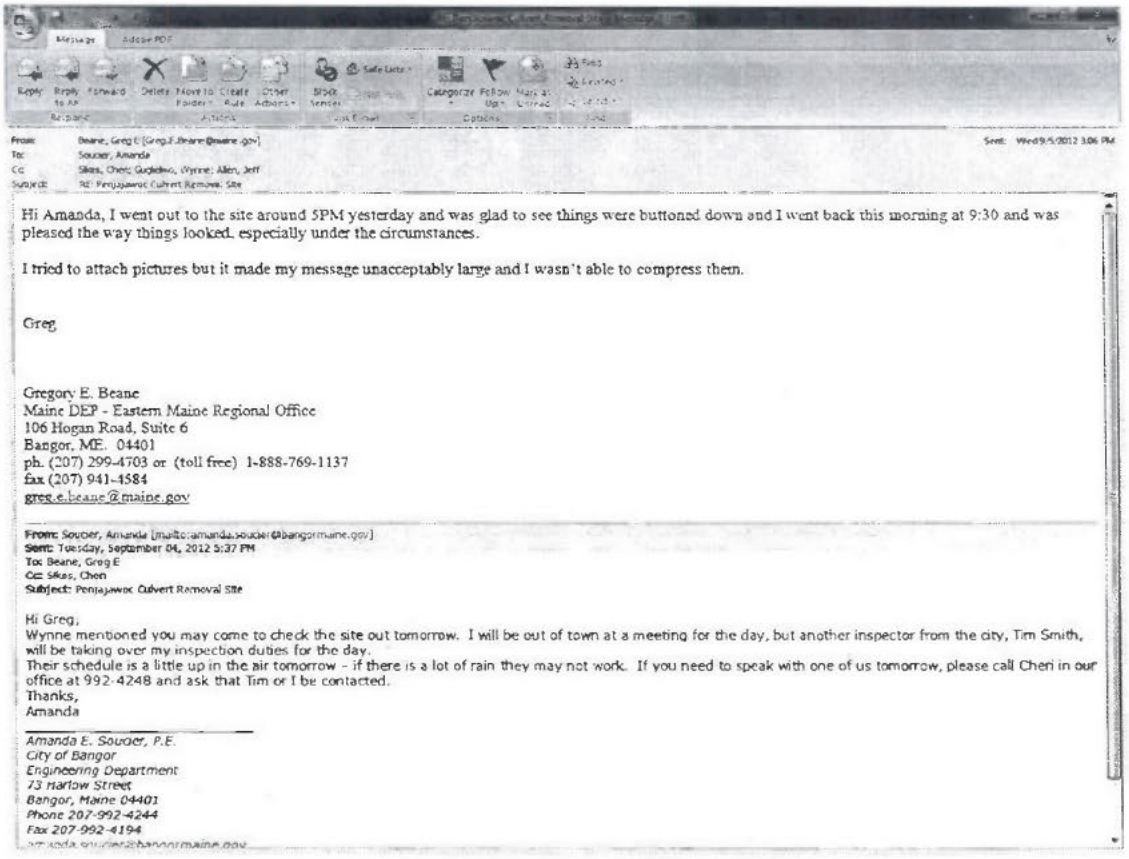
If yes, state corrective action & date completed_____

Are additional BMPs required for drainage or erosion control? **Yes □X** **No □**

If yes, state corrective action & date completed_ Ongoing Maintenance of exist. BMPS in place plus additional placement of silt fence & hay bales have been required due to nature of project as excavation progresses. Contractor has been proactive & responsive to requests regarding ESC. Post inspection indicated no signs of sedimentation during 3" rain

event. DEP also inspected site before and during event and was pleased with ESC measures. (Email attached.)

Photos Taken ____Yes 2588-2593__Prior to event



Hi Amanda, I went out to the site around 5PM yesterday and was glad to see things were buttoned down and I went back this morning at 9:30 and was pleased the way things looked, especially under the circumstances.

I tried to attach pictures but it made my message unacceptably large and I wasn't able to compress them.

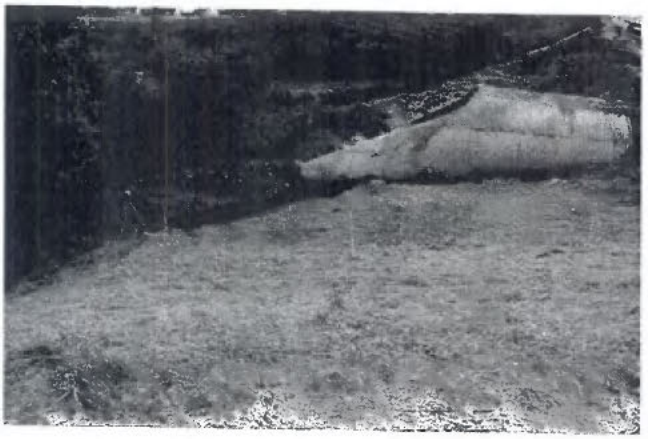
Greg

Gregory E. Beane
Maine DEP - Eastern Maine Regional Office
106 Hogan Road, Suite 6
Bangor, ME. 04401
ph. (207) 299-4703 or (toll free) 1-888-769-1137
fax (207) 941-4584
greg.e.beane@maine.gov

From: Souder, Amanda [mailto:amanda.souder@bangormaine.gov]
Sent: Tuesday, September 04, 2012 5:37 PM
To: Beane, Greg E
Cc: Sikes, Cheri
Subject: Penjajawoc Culvert Removal Site

Hi Greg,
Wynne mentioned you may come to check the site out tomorrow. I will be out of town at a meeting for the day, but another inspector from the city, Tim Smith, will be taking over my inspection duties for the day.
Their schedule is a little up in the air tomorrow – if there is a lot of rain they may not work. If you need to speak with one of us tomorrow, please call Cheri in our office at 992-4248 and ask that Tim or I be contacted.
Thanks,
Amanda

Amanda E. Souder, P.E.
City of Bangor
Engineering Department
73 Harlow Street
Bangor, Maine 04401
Phone 207-992-4244
Fax 207-992-4194



Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__9/18/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road **Signature:** _Amanda Soucier_____
Inspection before/after rain event 9/19/12

Urban Impaired Watershed: __Penjajawoc_____**(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes □X** **No □**

If no, state corrective action and date completed_____

Is there offsite tracking of sediment or fill material? **Yes □** **No □X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes □X** **No □**

If no, state corrective action and date completed_____

Are there signs of Sedimentation leaving the site? **Yes □** **No □X**

If yes, state corrective action & date completed_____

Are additional BMPs required for drainage or erosion control? **Yes □** **No □ X**
If yes, state corrective action & date completed_

Photos Taken ____No

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__10/1/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road **Signature:** _Amanda Soucier____
Inspection before/after rain event 9/27/12 – 10/1/12

Urban Impaired Watershed: __Penjajawoc_____**(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Is Proper Erosion Control Systems Employed? **Yes** □ **No** □ **X**

If no, state corrective action and date completed_More mulching was required prior to rain, contractor addressed 9/27.___

Is there offsite tracking of sediment or fill material? **Yes** □ **No** □**X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** □**X** **No** □

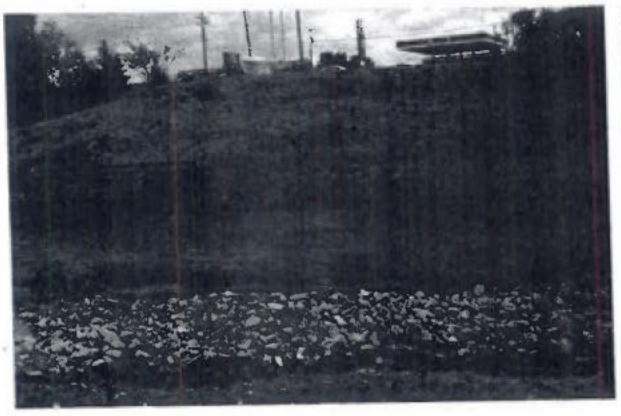
If no, state corrective action and date completed_____

Are there signs of Sedimentation leaving the site? **Yes** □ **No** □**X**

If yes, state corrective action & date completed_____

Are additional BMPs required for drainage or erosion control? **Yes** □ **No** □ **X**
If yes, state corrective action & date completed_ Checked site on Saturday 9/29/12 during event and on 10/1/12 after rain showers which began Friday p.m. and ended Sunday late evening. Site was stable during and after rain event. Debris was observed appx. 2/3 of the way up the protection stone, which also remained in place.

Photos Taken ____Yes 2623-2626__



Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: ___Amanda Soucier_____ **Date:**__10/5/2012_____

Name of Site/Project:_Penjajawoc Stream Culvert Removal at Old Sylvan Road **Signature:** _Amanda Soucier____
Post Inspection Rain Event 10/4/12, Pre Inspection Rain Event 10/6/12, Upcoming weekend

Urban Impaired Watershed: __Penjajawoc_____(**Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Is Proper Erosion Control Systems Employed? **Yes □ X** **No □**

If no, state corrective action and date completed_____Hogan Road side was also seeded earlier this week.___

Is there offsite tracking of sediment or fill material? **Yes □** **No □X**

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes □X** **No □**

If no, state corrective action and date completed_____

Are there signs of Sedimentation leaving the site? **Yes □** **No □X**

If yes, state corrective action & date completed_____

Are additional BMPs required for drainage or erosion control? **Yes □** **No □ X**
If yes, state corrective action & date completed_ Mulching was still all in place following earlier rain event this week. Showers occurred on 10/4, showers are forecasted for upcoming weekend.

Photos Taken ____Yes 2678-2683__

Construction Inspection Form –City of Bangor, Maine MS4 PY5

mid-phase

Name of Inspector: Wayne J. Gagliclum **Date:** May 30, 2013

Name of Site/Project: CWG Terminal Wide Construction **Signature:** [signature]

Urban Impaired Watershed: Birch – near Dam (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed N/A

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed N/A

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed N/A

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed a sed pond was added. mulch Berms + silt fencing protecting Birch Stream, treatment pond + Dam/ conveyance to Birch Stream

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: _____ **Date:** _____

Name of Site/Project: _____ **Signature:** _____

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☐ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☐

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☐

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☐

If yes, state corrective action & date completed _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeffrey Allen **Date:** 10/22/2012

Name of Site/Project: Concert Venue **Signature:** Jeffrey All

~~**Urban Impaired**~~ **Watershed:** Penobscot River **(Arctic Brook, Birch Stream, Capehart Brook, Penjejawoc Stream, Shaw Brook, Sucker Brook)** 1.8+ inches of rain in 2 hrs on 10/20/12.

~~Is Proper Erosion Control Systems Employed?~~ **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☑ **No** ☐

If yes, state corrective action and date completed silt detained in parking lot by silt sock in CB removed today by laborer

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Were photos taken? **Yes** ☐ **No** ☑

If yes, list file names and location _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Jeffrey Allen **Date:** 10 / 22 / 2012

Name of Site/Project: Illuminated Walkway **Signature:** Jeffrey Allen

~~**Urban Impaired**~~ **Watershed:** Penobscot River **(Arctic Brook, Birch Stream, Capehart Brook, Penjejawoc Stream, Shaw Brook, Sucker Brook)**

1.8+ inches of rain 10/20/12 in ~ 2hrs. Some evidence of ponding in front of Bark Mulch Berm but no breaches.

~~Is Proper Erosion Control Systems Employed?~~ **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☑

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☑ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☑

If yes, state corrective action & date completed _____

Were photos taken? **Yes** ☑ **No** ☐

If yes, list file names and location engineering / Projects_Misc / Illuminated walkway / Photos / 10-22-12 (1) Waterfront shows areas of ponding prior to filtering through Bark Mulch Berm.

Post-Construction Inspection Form – City of Bangor, Maine MS4 PY5

Name of Inspector: Wynne Guglielmo **Date:** May 31 2017

Name of Site/Project: Sylvan Rd Culvert Removal **Signature:** [signature]

Urban Impaired Watershed: Penjajawoc (Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)

Are Proper Erosion Control Systems Employed? Yes ☒ No ☐

If no, state corrective action and date completed

Is there offsite tracking of sediment or fill material? Yes ☐ No ☒

If yes, state corrective action and date completed

Are onsite drainage control structures functioning properly? Yes ☒ No ☐

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? Yes ☐ No ☒

If yes, state corrective action & date completed

Are additional BMPs required for drainage or erosion control? Yes ☒ No ☐

If yes, state corrective action & date completed The grass is growing in very tall thin [illegible]. It isn't short, denser, thick which will allow for the [illegible] of sediment on both sides of the slope. Contacted project manager [illegible] left [illegible]

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Wayne J. Coughlin **Date:** March 14 2013

Name of Site/Project: Aerial Sewer **Signature:** Wayne J. Coughlin

Urban Impaired Watershed: Birch **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☒

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☒ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☒

If yes, state corrective action & date completed _____

Post-construction follow-up.
Site looks great!

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: Wynne Guglielmo **Date:** April 5, 2013 cert # 1585

Name of Site/Project: Broadway Lateral Sewer Easement **Signature:** Wynne J. Guglielmo

Urban Impaired Watershed: *No but Shoreland Zoning Project– Burly Brook* **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed?	**Yes X**	**No ☐**
If no, state corrective action and date completed NA		
Is there offsite tracking of sediment or fill material?	**Yes ☐**	**No X**
If yes, state corrective action and date completed NA		
Are onsite drainage control structures functioning properly?	**Yes X**	**No ☐**
If no, state corrective action and date completed NA		
Are there signs of Sedimentation leaving the site?	**Yes ☐**	**No X**
If yes, state corrective action & date completed NA		
Are additional BMPs required for drainage or erosion control?	**Yes X**	**No ☐**

If yes, state corrective action & date completed: Requested that entire Roadway is mulched. Silt fencing, rip rap and double mulching is present along the entire project adjacent to Burly Brook. Before the end of the day, Friday, April 05, 2013, the entire roadway is to be mulched.

Construction Inspection Form –City of Bangor, Maine MS4 PY5

Name of Inspector: _____ **Date:** _____

Name of Site/Project: _____ **Signature:** _____

Urban Impaired Watershed: _____ **(Arctic Brook, Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook)**

Are Proper Erosion Control Systems Employed? **Yes** ☐ **No** ☐

If no, state corrective action and date completed _____

Is there offsite tracking of sediment or fill material? **Yes** ☐ **No** ☐

If yes, state corrective action and date completed _____

Are onsite drainage control structures functioning properly? **Yes** ☐ **No** ☐

If no, state corrective action and date completed _____

Are there signs of Sedimentation leaving the site? **Yes** ☐ **No** ☐

If yes, state corrective action & date completed _____

Are additional BMPs required for drainage or erosion control? **Yes** ☐ **No** ☐

If yes, state corrective action & date completed _____

Construction Inspection Form –City of Bangor, Maine MS4 PY5

mid-phase

Name of Inspector: Wayne J. Griffin **Date:** May 30, 2013

Name of Site/Project: CWG Terminal Wide Construction **Signature:** Wayne J. Griffin

Urban Impaired Watershed: Birch - near Dam (Arctic Brook, **Birch Stream, Capehart Brook, Penjajawoc Stream, Shaw Brook, Sucker Brook**)

Are Proper Erosion Control Systems Employed? **Yes** X **No** □

If no, state corrective action and date completed N/A

Is there offsite tracking of sediment or fill material? **Yes** □ **No** X

If yes, state corrective action and date completed N/A

Are onsite drainage control structures functioning properly? **Yes** X **No** □ WD

If no, state corrective action and date completed

Are there signs of Sedimentation leaving the site? **Yes** □ **No** X

If yes, state corrective action & date completed N/A

Are additional BMPs required for drainage or erosion control? **Yes** □ **No** X

If yes, state corrective action & date completed a sed pond was added. Mulch Berms + Silt fencing protecting BIA / Treatment pond + Dam / conveyance to Birch Stream

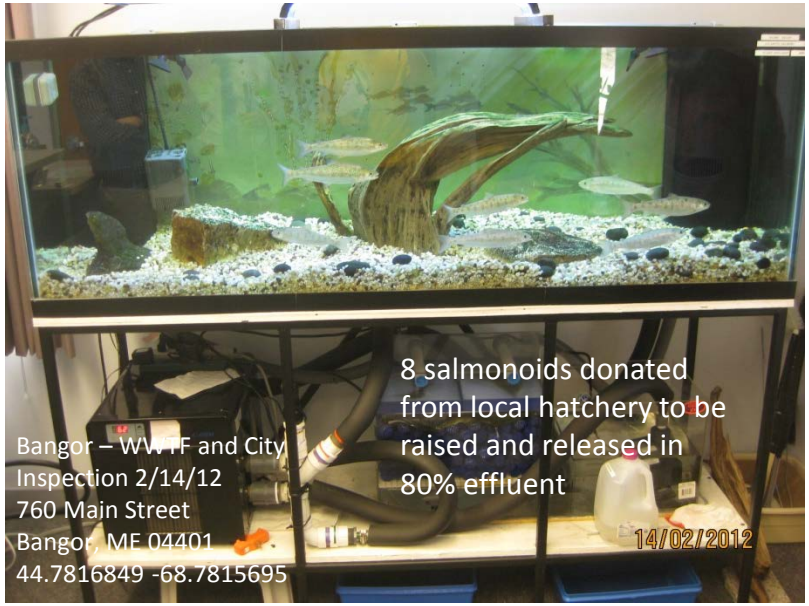
City of Bangor

Tour/Field Visit (Invited Inspection)
February 14, 2012

Inspector

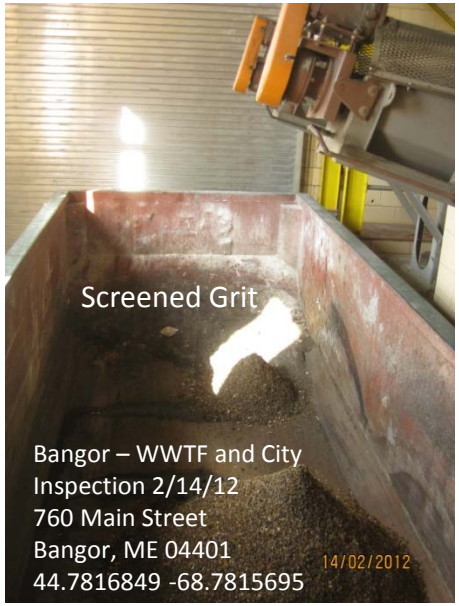
Alex Rosenberg

Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695

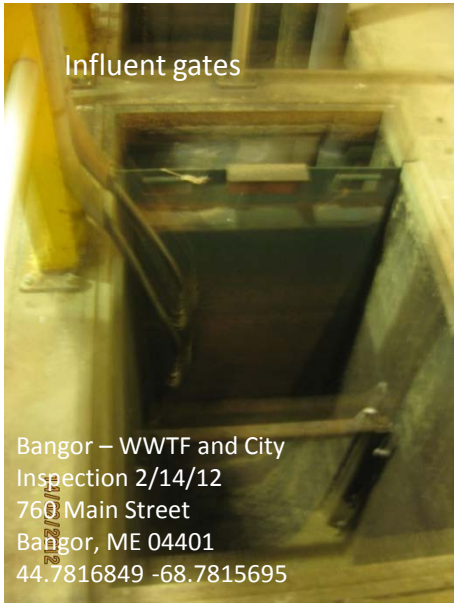

8 salmonoids donated from local hatchery to be raised and released in 80% effluent
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

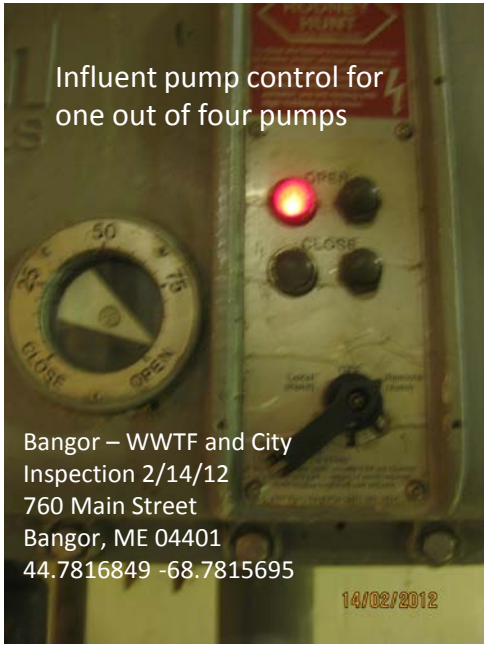

SCADA Index Control Screen
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Primary Settling tank #3
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Screened Grit
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Bar screen collectors
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Influent gates
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695


Influent pump control for
one out of four pumps
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

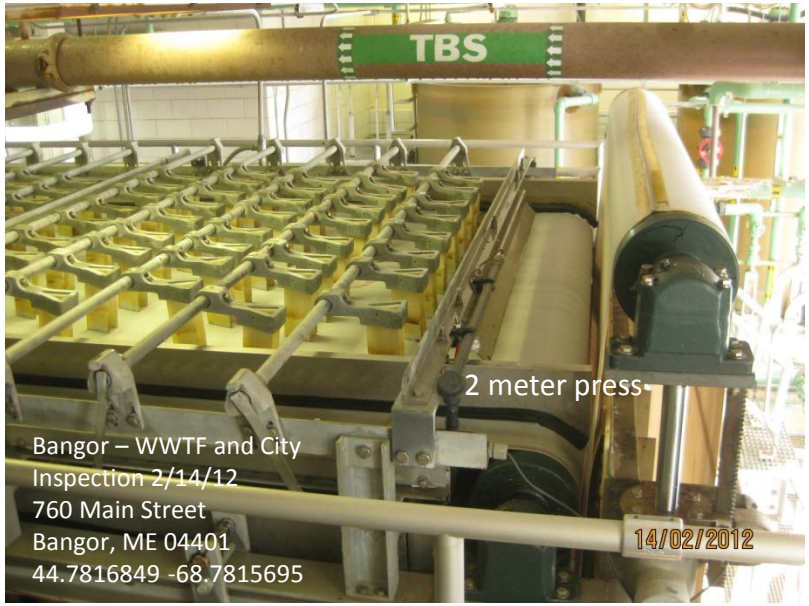

Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
Master four influent
pump controls
14/02/2012


Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
Pump Controls Close-up:
One lead, primary lag is
single rate.
14/02/2012


Sludge to primary tanks
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Electrical power?
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

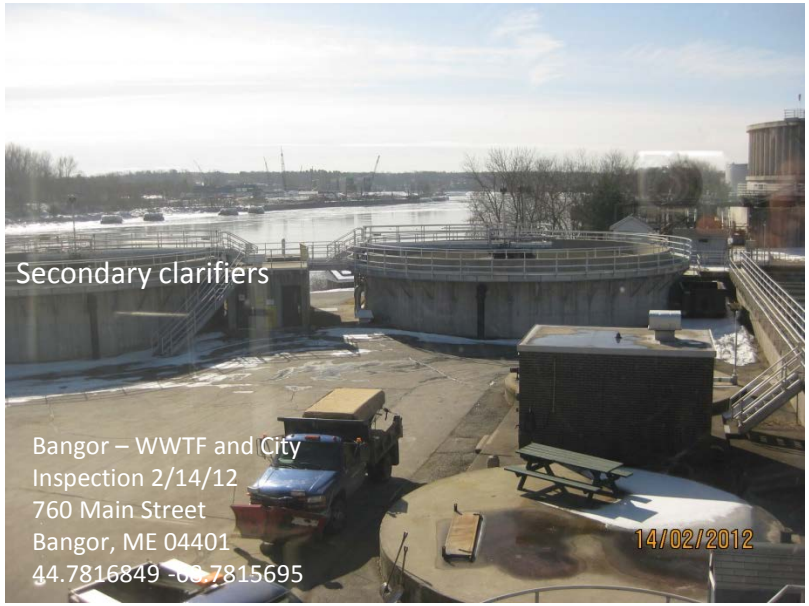

Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
Additive pumps: chlorine
and sodium bisulphate
14/02/2012

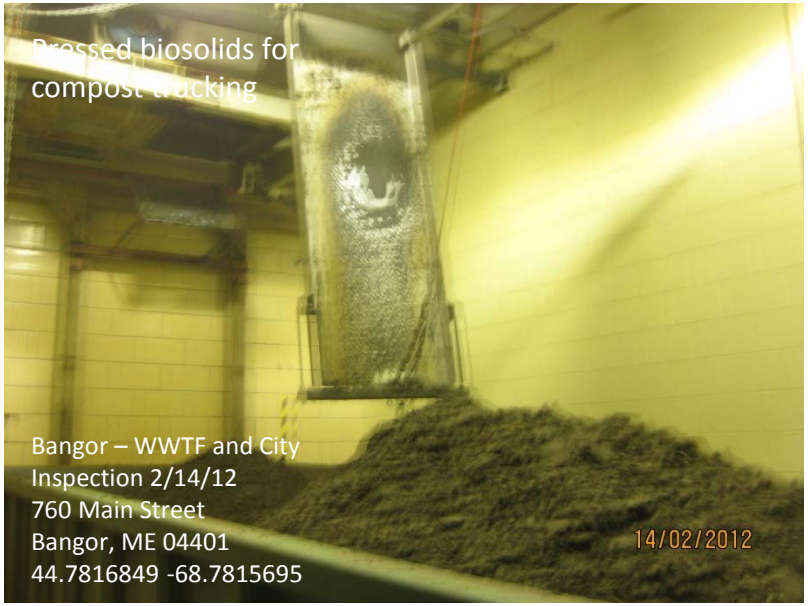

TBS
2 meter press
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Vats of additives
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Slow meters
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Pig entry points to clean sludge lines - multidirectional
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Secondary clarifiers
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Pressed biosolids for
compost trucking
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


pH monitoring station
-SUNDAYS-
SUCTION
LINES
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Sampling point for
secondary final effluent
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Sampling location for wet weather (primary treated flow)
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


One drum uncontained, but is bing switched out
TF and City
14/12
et
4401
68.7815695
14/02/2012

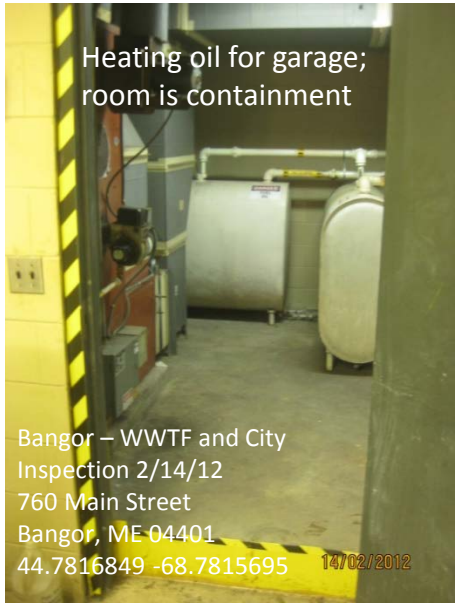

Well contained oil storage in garage
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Oil storage in garage
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


OILY
RAGS
ONLY
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

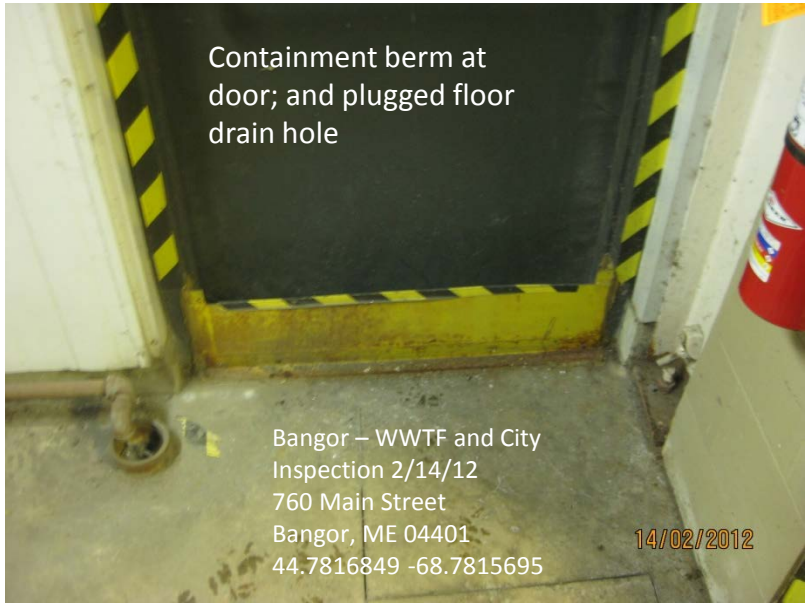

Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Oil storage
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Heating oil for garage;
room is containment
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

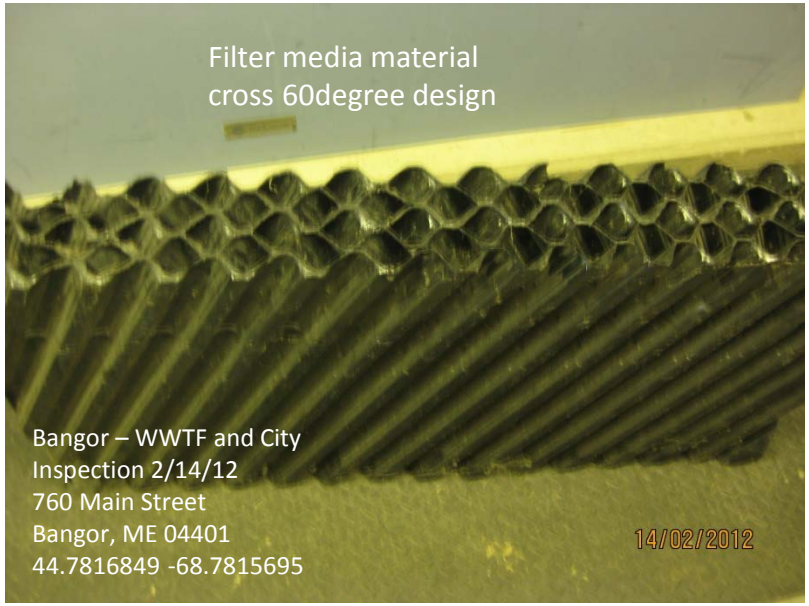

DANGER
FUEL
OIL
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

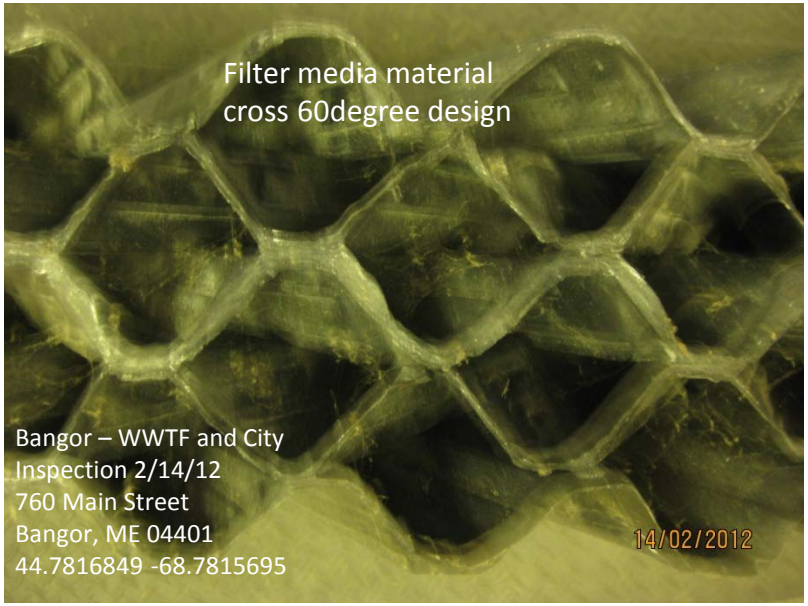

NOTICE
DISCONNECT
TRANSFER LINE
PRIOR TO
DEPARTURE
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
Tank fill location
14/02/2012


Containment berm at
door; and plugged floor
drain hole
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Effluent discharge point
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

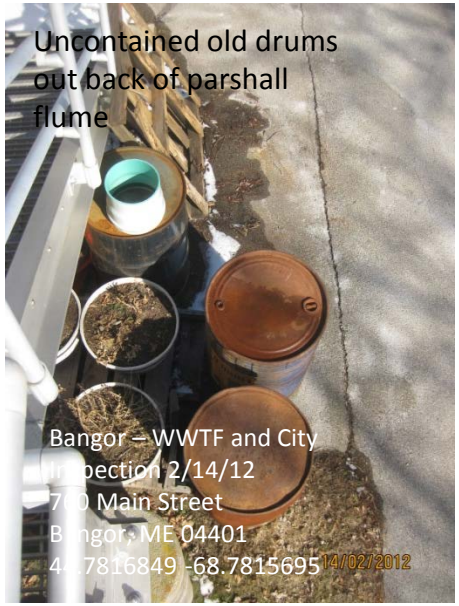

Bio tower
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Filter media material
cross 60degree design
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Filter media material
cross 60degree design
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012

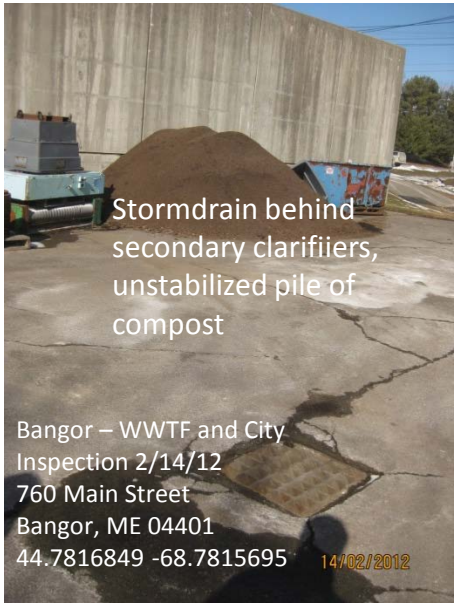

Pumps from aeration basin or secondary clarifiers
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Aeration pumps
14/02/2012


Uncontained old drums out back of parshall flume
Bangor – WWTF and City
760 Main Street
14/02/2012


Parshall flume at effluent discharge point
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Parshall flume
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Stormdrain behind secondary clarifiiers, unstabilized pile of compost
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760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
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Stormdrain in parking lot in front of offices
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secondary clarifiers
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WAS
SECONDARY SCUM
Pumps from secondary clarifiers
Bangor – WWTF and City
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BASS PARK
Davis Brook Storage structure
Bangor – WWTF and City
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760 Main Street
Bangor, ME 04401
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14/02/2012


CSOc ontrol structure controls
Bangor – WWTF and City
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Bangor, ME 04401
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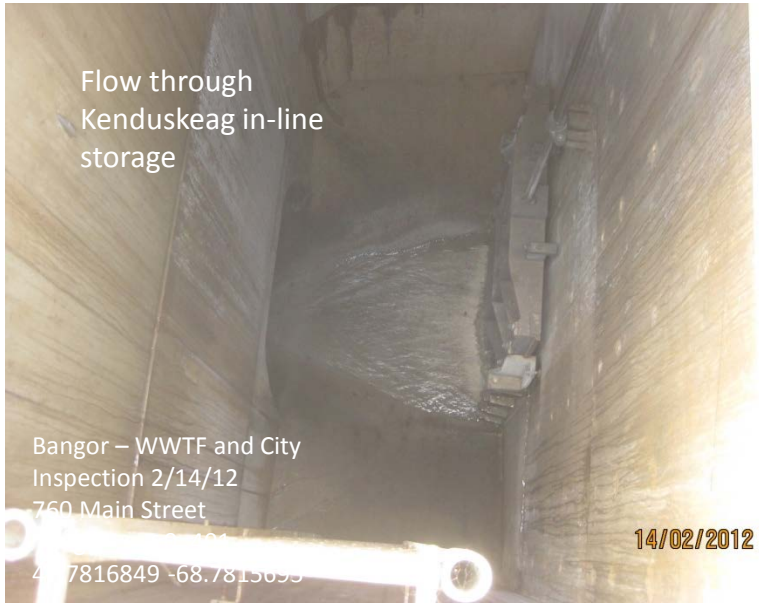
14/02/2012


V-notch bottom of storage tank
14/02/2012


Flow through
Kenduskeag in-line
storage
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
14/02/2012


CSO control structure hut
Kenduskeag in-line storage
Bangor – WWTF and City
Inspection 2/14/12
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14/02/2012


CITY OF BANGOR
WET WEATHER
SEWER DISCHARGE
OUTFALL 003
Signage at CSO outfall
Bangor – WWTF and City
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CSO Kenduskeag
Bangor – WWTF and City
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Waterfront park up-stream of Kenduskeag storage structure
Bangor – WWTF and City
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14/02/2012


Cellular transponder on Pump Station exterior wall for remote alarm notification
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14/02/2012


Pump Station
Bangor – WWTF and City
Inspection 2/14/12
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Bangor, ME 04401
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PLEASE CALL 942-9211 WHEN ALARM IS ON
Pump station sub-terranean entry
Bangor – WWTF and City
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Bangor, ME 04401
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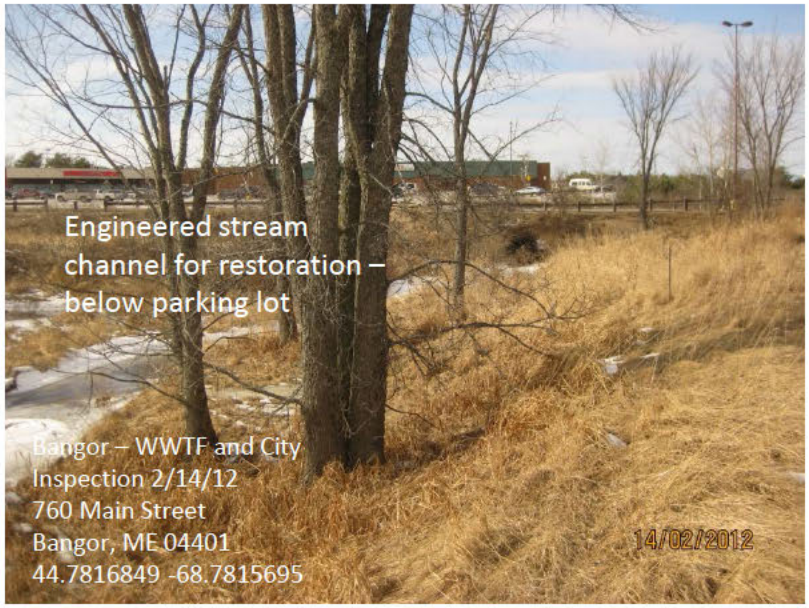
Engineered stream channel for restoration – below parking lot
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695
14/02/2012


Bangor – WWTF and City
Inspection 2/14/12
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Engineered stream channel for restoration
14/02/2012


Engineered Storm water detention basin and stream channel
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
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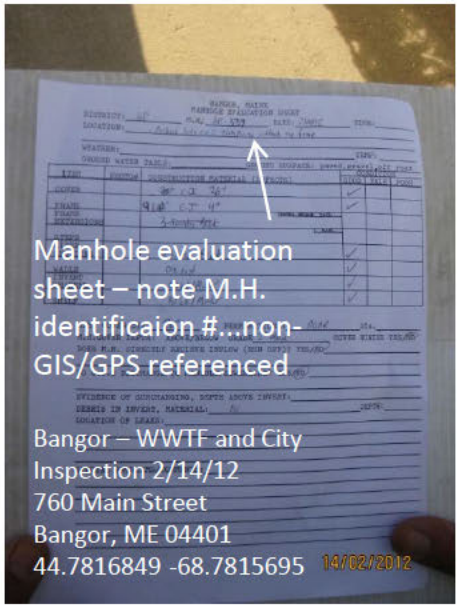
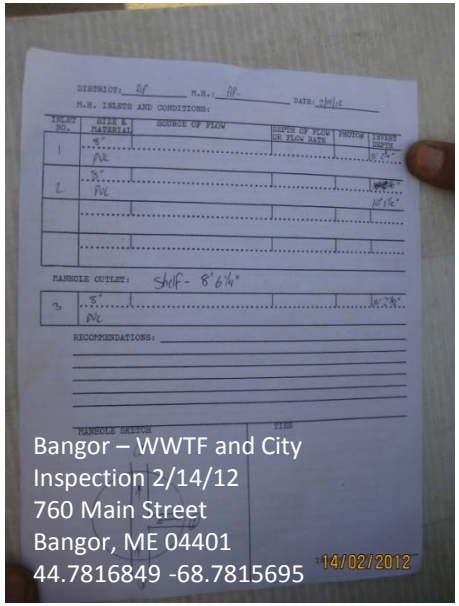
44.7816849 -68.7815695
14/02/2012


Manhole evaluation sheet – note M.H. identificaion #...non-GIS/GPS referenced
Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
44.7816849 -68.7815695 14/02/2012


DISTRICT:
M.H.
DATE:
M.H. INLETS AND CONDITIONS:
INLET NO.
SIZE & MATERIAL
SOURCE OF FLOW
DEPTH OF FLOW OR FLOW RATE
PHOTO#
INVERT DEPTH
MANHOLE OUTLET:
RECOMMENDATIONS:
MANHOLE SKETCH
Bangor – WWTF and City
Inspection 2/14/12
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STERLING
Bangor – WWTF and City
Inspection 2/14/12
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14/02/2012


Bangor – WWTF and City
Inspection 2/14/12
760 Main Street
Bangor, ME 04401
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14/02/2012

PHOTO LOG

1	Photographer	Alex Rosen
2	Facility/Site Name and Address	City of Ban
3	Facility EPA ID Number	
4	Type of photographic device	Digital Can
5	Digital recording media	Camera
6	all digital photos were copied by	Alex Rosen
7	all digital photos were copied to:	K:\Inspecti
8	Original copy is stored:	on a CD

9 LOG

Date	Time	File Name	
9/13/2012	1154	IMG_	2214
9/13/2012		IMG_	2215
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9/13/2012		IMG_	2218
9/13/2012		IMG_	2219
9/13/2012		IMG_	2220
9/13/2012		IMG_	2221
9/13/2012		IMG_	2222
9/13/2012		IMG_	2223
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9/13/2012		IMG_	2243
9/13/2012		IMG_	2244
9/13/2012		IMG_	2245
9/13/2012		IMG_	2246
9/13/2012		IMG_	2247

9/13/2012		IMG_	2248
9/13/2012		IMG_	2249
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9/13/2012		IMG_	2252
9/13/2012	16:21	IMG_	2253

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ɔn Documents\Inspection Reports\Maine\Bangor\City of Bangor\2012-9-13 City of Bangor MS4\photos

Description/Comments
sylvan road culvert removal and bank stabilization project
bypass hose to sedimentation pond
sedimentation pond
perched culvert being installed
bank stabilization area
bank stabilization area
upstream daylit with groundwater underdrain below I-95
ripple enhanced stream ecosystem
upstream environment - overgrown with invasive buckthorn
upstream environment to sylvan road and (-95 underpass
upstream environment
upstream environment
K-mart sw detention basin
K-mart sw detention basin - sediment deposition in base and overgrown banks
access road to parking lot that feeds sediment basin w/ stormdrain as well
marsh besides home depot
marsh besides home depot
Home depot parking lot with curb breaks to permit sw to runoff into marsh
stormwater outfall across the penobscot in brewer; actively flowing
City of Bangor DPW headquarters parking lot looking towards forested buffer before airport stream
inside stormwater drain in DPW parking lot
temporary berm for stormwater runoff before it can reach the drain in the bottom left of the pic.
airport stream - discharge point for the DPW parking lot
downstream view of wier before stream becomes Birch Stream
DPW maintenance garage parking lot looking towards BIA tank farm
maintenance garage bay doors and fueling station
pumps for jet A fuel, note driveway/fueling station to the left with vehicle using road and hose in road
raised lip stormwater catchbasin outside of pump house
stormwater drain inside of fueling area bermed containment, no containment for the Jet A tank sump f
bulk oil container
bulk oil container
signage of inspection on bulk oil container
signage of inspection on bulk oil container
signage of inspection on bulk oil container

SCADA control system for pumps and tanks
SCADA control system for pumps and tanks
SCADA control system for pumps and tanks
unsigned substantial harm criteria page
signed approval page of integrated contingency plan (SPCC plan)

uel container